

DUKE·UNIVERSITY·PUBLICATIONS

A CENTURY OF SOCIAL THOUGHT



# A CENTURY OF SOCIAL THOUGHT

A SERIES OF LECTURES  
DELIVERED AT DUKE UNIVERSITY  
DURING THE ACADEMIC  
YEAR 1938-1939 AS  
A PART OF THE  
CENTENNIAL CELEBRATION  
OF THAT INSTITUTION



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## PREFACE

DURING the academic year 1938-1939 Duke University observed the one hundredth anniversary of its founding. As a part of the Centennial Celebration a series of lectures was given that dealt in a general way with aspects of the educational and cultural progress of the past one hundred years. Each lecture was prepared not only with the immediate audience in mind but also with the intention of its becoming a chapter in a volume depicting a century's development in scholarly thought. Individually each chapter is a unit in itself; collectively the chapters constitute a volume showing the simultaneous and coordinate development of selected fields of learning.

Duke University has played its part in this development. The University is built round Trinity College, which goes back in its origins to 1838-1839. In that year a group of Methodists and Quakers in Randolph County, North Carolina, formed an association for the support of a school which they called Union Institute. Later the name was changed to Normal College. Just before the Civil War the School was reorganized under the name of Trinity College, which continues today as the undergraduate college for men in Duke University. The University

was organized in 1924. While the volume is commemorative of the one hundred years of development of the institution, it also portrays to the individual who is interested in cultural progress some important contributions to scholarly thought that have been made since the founding of the School a century ago.

The Chairman of the Centennial Lectures Committee wishes to acknowledge the valuable assistance of Professors Bryan Bolich, Harvie Branscomb, W. A. Brownell, and A. S. Pearse as members of the Committee. The Committee is indebted to Mr. Henry R. Dwire, Chairman of the Centennial Committee; Mr. A. S. Brower, Executive Secretary of the Centennial Committee; Professor Alan K. Manchester and the staff of the Duke University Press who helped in the editing and publication of this volume.

ROBERT S. RANKIN,  
*Chairman, Centennial Lectures Committee.*

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## A CENTURY OF SOCIAL THOUGHT



## AN EVOLVING CONCEPTION OF GENERAL EDUCATION

CHARLES HUBBARD JUDD

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ONE HUNDRED YEARS ago the educational system of the United States conformed in the main to the pattern of the dual educational systems of European countries. There was on this side of the Atlantic, as on the other, a common school for the children of ordinary families and a Latin school followed by the college for boys from families of the upper social class. The curriculum of the common school was limited to the rudimentary vernacular subjects. The Latin school, as its name indicates, was a classical school. The college was a professional school organized and largely maintained for the training of the young men who were to enter the ministry or the law.

There was one institution in this country which did not altogether fit into the pattern of the European schools—that was the academy. The academy was a curiously unstandardized institution. In some cases academies were dominated by the classical tradition and could hardly be distinguished from Latin

schools. In other cases, they were nonclassical, of a type which can fairly be described by the designation "peoples' colleges." The academies admitted to their nonclassical courses students who had secured their earlier education in the common schools and were ambitious to go further in their studies than they could in the schools which taught only rudimentary subjects. Most of the academies were boarding schools. Students attended for irregular periods and studied such subjects as belles-lettres, elocution, philosophy, music, painting, theology, and other advanced subjects. Some academies prepared teachers for the common schools by giving review courses in the rudimentary subjects and courses in methods of teaching. Some were denominational, established by the new Protestant sects for the purpose of educating candidates for their clergy.

The academies were developing slowly when a radical change in the organization of the common schools resulted in a sudden increase in their number and a marked expansion in their student population. In order to understand this change in the common schools, one must go back to the period of the War of 1812. There was very little public interest in the organization of either the lower or the upper schools until the awakening of national consciousness which followed that war. To be sure, the colonies, and later the states, had passed laws favoring the establishment of schools for the purpose of teaching reading in order that individual citizens



might be equipped to read the Scriptures and also to read what was frequently referred to in the early school statutes as the "capital laws," but public education never flourished in the early days. In the years following 1812 the common schools began to command a greater interest on the part of communities. These schools had from the earliest times received young people up to twenty-one years of age. The winter terms of the common schools were frequently attended by a considerable number of young people ranging in age from sixteen to twenty. These older pupils were not needed during the winter months for farm work, and they assembled in the schools quite as much for the purpose of satisfying their gregarious impulses as for the purpose of cultivating their minds. The function of the teacher in the winter term of the common school was often that of matching himself in a running warfare of wit and sometimes of physical strength against the combined forces of those who were supposed to be his pupils.

The comparatively incompetent and often riotous common school was so ill organized that as soon as the states began to appoint state education officers, as they did in the late thirties and early forties, it was recognized that something must be done to improve the instruction given to children. During the two decades following 1840 a vigorous movement of reorganization of the common schools was inaugurated by a number of educational leaders in various parts of the United States. As a result of this move-

ment, the school which we know as the eight-year graded elementary school providing for pupils from six to fourteen years of age came into existence.

It is not necessary for the present purposes to enter into the discussion of all the reasons why the elementary school was organized as an eight-year school, why it limited its ministrations to pupils under fifteen years of age, and why it continued to include in its curriculum only rudimentary subjects. The fact in which we are interested at the moment is that the common school ceased by 1860 to be a resort during the winter term of young people of sixteen to twenty years of age. During the years when the common school was being better organized and was being closed to older pupils, the academies flourished. They took the place of the common school of earlier days so far as young people from sixteen to twenty years of age were concerned. They did more for the intellectual lives of young people than the common schools had done. They satisfied more fully than had the common schools the maturing interests of young people. Debating societies with elaborate Greek names were organized, and social activities were conducted in a more orderly way than they had been in the scattered rural homes from which students came or in the winter terms of the common schools.

During the Civil War, and in the depression years following, the academies had difficulty in maintaining themselves. Many of them depended alto-

gether for their financial support on tuitions paid by students. The difficult economic problems that the academies faced do not, however, explain a fact which is one of the most extraordinary in American institutional history. During the decade from 1870 to 1880, the academies, which up to 1865 had been highly important factors in American education, disappeared almost entirely. A few of them which had substantial endowments or were otherwise strongly entrenched survived, but the academy movement in general came to an abrupt end.

The fundamental reason for the closing of the academies is to be found in the fact that the American ambition to secure democratic opportunity for all young people, older as well as younger, could not be satisfied by privately conducted tuition schools, such as the academies. After 1870 the ingenuity of the people of the United States expressed itself in the invention of an institution to supplement the new elementary school and make up for the fact that this school had banished older pupils. Gradually in the last decades of the nineteenth century, and with increasing vigor in the decades of the twentieth century, American communities organized public high schools.

Some of the broad social reasons why the high school began its career as a major factor in American national and community life in the post-Civil War period are easy to understand if one considers the changes which were beginning to take place in in-

dustry and in the distribution of the population of the country during this period. Whether one speaks of these changes as the second industrial revolution, the beginning of the mechanized civilization, or the first stage of urbanization of the population, the significant fact is that, in the years following 1870, the United States moved rapidly in a direction in which it had moved only very slowly before the war. In the new era the common man was filled with ambition for his children. Industry appreciated the advantage of trained minds. Boys and girls saw the necessity of gaining education beyond that required for the mastery of the three R's in order to insure personal success.

As the public high school came into existence, it, like the academy, began an unstandardized career. The classical tradition of the Latin school was still strong, and the high school in many cases adopted without modification the pattern of the traditional European and early American secondary school. Along with the classical tradition, however, was the broader view of education which had been fostered by some of the academies. So-called English curricula were developed paralleling or superseding the classical curriculum. As the years passed, the sciences were added to the high-school program of instruction, and, when the movement of expansion gained full momentum, there was hardly a subject that some high school was not ready to attempt.

In 1892 the high school was taken in hand by the so-called Committee of Ten—a committee of the National Education Association, of which President Eliot of Harvard was chairman. This committee standardized the high school with respect to the number of hours to be devoted to courses and with respect to the arrangement of courses into groups. There is some reason to believe that the high school was overstandardized by President Eliot's committee. This committee threw the weight of its influence in favor of the traditional classical-mathematical curriculum, but it did not succeed in holding the high school true to tradition. The curriculum expanded after 1892 as a result of the operation of social forces which were not fully considered by President Eliot and his associates. As one looks back on the history of this institution, it is apparent that the high school rapidly became a part of the common school; it departed from the pattern of European education. European education has always been, and is today, class education. The aristocracy of Europe retains for itself and its offspring the right to all the higher branches of knowledge. The common people of Europe have to be satisfied with the rudiments of knowledge. The upper classes learn foreign languages; the common people are taught in the vernacular and are excluded from the study of other languages. The upper classes study geometry and other higher subjects; the common people do not. Even higher technical education is open in Europe only to the few.

In the United States the European limitations placed on the education of the common man are out of accord with the accepted principle of equality of opportunities. As a result, it has come to pass that secondary education and higher education in all lines are here open to all young people. The latest figures reported by the United States Office of Education show that the high schools of this country now enroll 6,700,000 pupils, or more than two-thirds of the population of high-school age. The curriculum of secondary schools has expanded from nine traditional subjects which were taught in 1890 to more than 250 subjects now found in the secondary-school programs of the United States. Expansion in the courses offered in colleges has been even more marked. The student population of colleges has now reached the point where one out of every fifteen persons of college age is registered in some kind of post-secondary institution.

The high schools of the United States conceived of as extensions of the common schools are, it must be admitted, not fully adjusted to their mission. The European tradition persists and is at war with the American ideal. Within the public schools of this country there are two personalities, if one may borrow a phrase from psychiatry. These two personalities are often in such violent conflict that they threaten to destroy their possessor. The one personality gets its traits and tendencies from its parent—the classical secondary school of Europe. The other personality

is the lineal descendant of the academy of the mid-nineteenth century. The classical personality is conservative, traditional, often smug and self-satisfied. The academy personality is ambitious, unrestrained, almost heedless in its enthusiasm for exploration.

The American college is no less distributed in its internal organization than is the secondary school. The time has passed when the college can think of itself as a quiet resort where a few chosen young men prepare by earnest endeavor and devotion to classical-mathematical studies for positions in the three traditional learned professions of theology, law, and medicine. The American college is today an institution for the common people. It is being influenced from below and is striving to meet the needs of many different kinds of graduates of the secondary school. In earlier times the colleges were closely related to the Latin schools. Today the high schools and also the colleges are determined in their organization and in their teaching programs by social demands. The confusion from which they suffer results from the fact that tradition and social demands are at odds, and educators do not find it easy to decide what should be done to avoid the clash between these contending forces.

No one who examines the confusion which prevails in American post-elementary education can fail to be impressed by the strength of tradition. To be able to read, even haltingly, a sentence in Latin is regarded by many people as an intellectual achieve-

ment of the highest order. To be able to repeat the demonstrations which were worked out by Euclid is to prove one's right to be classified among the elect. Acquaintance with Latin and geometry has something of the glamour and prestige of membership in a secret society. Young people want to be recognized as belonging. The teachers of these traditional subjects have not been slow to take full advantage of the general respect for that which has been handed down from the long past. The teachers of the classics and of mathematics have become so accustomed to thinking of themselves as intellectual aristocrats that they have with perfectly good consciences told young people that association with themselves and study of the subjects which they teach are the only possible devices by which one can make one's self intellectually and socially respectable. The liberal arts, so-called, have been acclaimed as the sole means of bringing individuals to the higher levels of cultural life. So strong is tradition that, when pupils rebel against the classical-mathematical subjects, they are classified as dull, or even stupid.

When conflict as acute as that which exists between the classical tradition and the popular desire for advanced education appears, society always tries to find a way out. The educational system of this country has sought to resolve the conflict by admitting that everyone may go to high school or even to college, but, once in these institutions, the rebels against tradition must be classified together and must be relegated



to compartments where they will not endanger the sanctity of the traditional subjects by trying to get in contact with them.

Many high schools now have compartments in which so-called vocational or occupational courses are provided for the common people. The colleges have schools of business, schools of agriculture, and schools of engineering where the classics do not appear in the instructional programs. The device of separating learners into distinct groups is recognized as somewhat unfortunate in a democratic country. The disadvantages of such separation are alleviated by letting some of the young people classified as dull into a few of the courses designed for the aristocracy. Since the so-called industrial pupils cannot study Latin, they are allowed to take a course in English literature. To be sure, the English course is formulated in terms of the traditional courses from which the industrial pupils have been banished. The teacher of the English course does not treat literature as something to be enjoyed and appreciated but breaks it up into small fragments and utilizes it as a means of teaching how to construct English sentences. When a vocational pupil gets into an English literature class, he finds it boring in the extreme. He would fail to pass the course if it were not for the fact that the teacher condescendingly allows him to pass, thinking of leniency in this case as a gracious concession to an inferior grade of individuals.

The time will come when it will be recognized

that the straddle between the classical tradition and popular demands will have to be given up and a curriculum suited to modern life will have to be developed without domination by tradition handed down from the European educational system, where the legitimacy of higher education of the common people is not conceded.

The first step toward the proper organization of post-elementary education in this country is, I am sure, an analysis of the traditional classical curriculum to see what it really is. It is a curriculum designed to prepare people to enter professional and clerical careers. The classical curriculum has never been, and is not now, a general curriculum. It is a specialized vocational curriculum. When in Colonial days Harvard and Yale were organized and the Latin school was established, there was no talk about these institutions being institutions of general education. They were schools for the training of a very definite professional class. The fact is clear today, as it was in the beginning, that the classical curriculum is not appropriate for the training of the young people who intend to become teachers in an elementary school or for the training of merchants and tradesmen. To induce the majority of the young people of this country to take the traditional courses is to prepare them for callings which they will not enter. The secondary schools of this country are preparing ninety per cent of their pupils to enter white-collar jobs, and not more than twenty per cent of

them can find employment in such jobs. The secondary schools of this country are preparing more clerks, teachers of secondary-school subjects, and people who hope to become lawyers, preachers, and physicians than can possibly be absorbed by society. Faithful to the tradition of European aristocracy, the great majority of the secondary schools of the United States treat their pupils as though they were members of an exclusive class.

In 1906 in the state of Massachusetts and in 1917 through action of the Congress of the United States, industrial leaders with the aid of a small group of educators started a movement which they thought would avoid the dangers of aristocratic, traditional education. They organized a system of vocational education at the secondary-school level. Some of the proponents of this movement advocated a dual secondary-school system with traditional schools on the one hand, and trade schools, schools of agriculture, commerce, and home economics on the other hand. It is now clear that extreme emphasis on what is called vocational education is as far from solving the American problem as is emphasis on the traditional subjects. The fact is that adequate trade training in any line can be given in far less time than that commonly allotted to secondary education. The further fact is that young people of this day are compelled to attend school much longer than in the past because they have nothing else to do. Industry and commerce no longer have places for young people. Once

in school, these young people find that they have to choose between preprofessional courses, technical courses, or some incongruous mixture of the two kinds of courses. If the schools try to fill the time of their pupils in secondary schools with vocational courses, they will fail to occupy the energies of these pupils. Moreover, they will do great harm by permitting them to develop dilatory habits which will make them unfit for industrial positions when, in later life, they enter such positions.

I pause in the discussion to make a remark which may be necessary in order to avoid possible misunderstandings. I am in favor of vocational education of the trade and commercial type. I am in favor of preparing boys and girls for practical vocations by employing the best means at our command. I am equally in favor of preparing clerks and professional people. I am sure that under modern conditions it is essential that young people use some of the time which society is able to give them before they enter upon vocational activities to prepare fully for these activities.

With this statement of my personal belief in the desirability of education for both the trades and the professions I wish to couple a plea as vigorous as I can make it for general nonvocational education for those who are to enter the trades and also for those who are to enter clerical positions or the professions. I hope that my remarks have adequately prepared the way for an understanding of the phrase "general

education" so as to make it impossible for anyone to think that either the so-called vocational courses or the traditional liberal-arts courses can satisfy the demand for general education. The statement cannot be too emphatically made that the liberal arts are preprofessional, leading into very specific vocational callings. General education, when properly conceived, will have to be defined in a way which will clearly detach it from the courses which prepare specifically for gainful occupations.

General education, whatever its contents, must rescue the individual from the limitations of strict specialization. All occupational preparation is from its very nature special. Specialization is dangerous in either the trades or the professions because it is comparatively easy for human nature to specialize. It is far easier to repeat again and again a type of thinking or a form of behavior which one has perfected through practice than it is to launch out on new types of activities. Every human being tends as life progresses to narrow the range of his behavior and interests. The mathematician does not cultivate an interest in philology; the mechanic does not cultivate skill in the fine arts. When specialization goes to the extreme toward which it tends, one actually feels a distaste for activities that are foreign to one's routine forms of behavior. The artisan has a certain contempt for anyone who is unskilled, the professional man looks down on the mechanic, though both of them may be routinists limited by their specialties

to narrow ways of thinking and narrow spheres of life.

Specialization, while natural, can be shown without profound biological and psychological discussion to be contrary to the trend of evolution. The lower animals are the best examples of the results of extreme specialization. Their small nervous systems and their specialized organs of behavior make it impossible for them to move except in narrow spheres of life. The lower animals seldom, if ever, innovate. They are fitted to the environment in which they live, and they go through their lives without attempting to change this environment. Human life differs from animal life in the fact that it is not circumscribed. A major characteristic of human beings is that they have the power to change their methods of living. They are even able to change the environment in order to make it serve human purposes. The mind of man is inventive and thus escapes in some measure the limitations of narrow specialization.

To be sure, some of the activities of human beings are specialized and fixed. The organic routines of life are handed down from generation to generation in unchanged form. There probably has been no improvement in human methods of swallowing since the beginning of the race. We are all expert specialists in swallowing.

At the same time that nature spares us the effort of individual adaptations in such organic processes as are essential to the preservation of the species, it

confers on us in the cerebrum an organ which is an organ of new adaptations. If the human cerebrum is compared with the cerebrums of the highest animals, it is found to be twice the size of that of the most highly evolved species below man. It is unique in size and complexity. Because of its complexity, it makes possible a great number of new adjustments. The human hand performs as it does because its muscles are under the control of the cerebrum, which utilizes these muscles in an infinite number of combinations. The human cerebrum is slow in its development. Human infancy is longer than the infancy of any of the animals because the human cerebrum matures slowly. The cerebrum can, it is true, be specialized through practice. The pathetic fact about human nature is that, as age advances, specialization tends to destroy the flexibility of the cerebrum. At its best, however, the cerebrum is not a specialized organ. In this organ new scientific generalizations are formed, and comprehensive policies are elaborated.

If education is to promote the trends which evolution has followed, it must keep individuals plastic and flexible as long as possible. It must prevent the adoption of narrowing routines. It must avoid the danger of such complete concentration on particular lines of thought and action that interests become limited and prejudices take the place of willingness to respond in new ways to one's impressions. Individuals must not concentrate all their energies on prep-

aration for their callings in life either in the trades or in the professions.

So much for biology and psychology. There are other reasons, social in character, why extreme specialization should be avoided. No man who earns his living by a trade or profession can afford to think of himself as living primarily for the purpose of plying the trade or following the profession. A man is a member of the family, a physical being in need of recreation, a citizen of the nation, a part of modern society. Complete absorption in an occupation is as unintelligent as it is undesirable.

It follows from these statements that every pupil in school should have his outlook on life extended while he is at the same time being trained for some trade or profession which will make him ready to serve as a productive member of society.

If there were no biological, psychological, or social reasons for advocating that education avoid extreme specialization, strong reasons against specialization could be derived from the study of the internal organization of the individual. No human being can be happy who lacks internal balance of powers. After one has been at work for a time at a given task, the organism and the mind crave relaxation in that sphere and a turning of attention and effort to some sphere in which one has not been fatigued. The organism of an individual is too complex to be occupied continuously in a single line.

It is perhaps unnecessary to comment further on



the reasons why education should avoid extreme specialization. It remains for one who is convinced that education should go beyond specialization to arrive at some adequate statement as to the changes which must be made in the programs of instruction of secondary schools and colleges in order to cultivate human powers to the fullest. Using very general terms, one may say that education for competent living in society is general education and is different from specialized education.

It is a striking fact that American elementary schools and secondary schools have devoted very little time to the education of young people with regard to their relations to society. The reasons for this neglect are clear as one looks into the history of schools. In the division of labor which was adopted when schools were first organized, training for social life was recognized as in the main a duty of the home. In the simple agrarian life of earlier generations, one's relations to society could be taught, and were taught, by the elders in the family and community. Public policies related altogether to the local community, and the machinery of government and the services of the government were fairly open to direct inspection. Conditions have become far more complicated than they were in earlier times, and the home is no longer competent to perform the function of providing social and civic education. Nor is the school as now organized competent to give general social education. Most teachers are as ignorant as are par-

ents with respect to the broader social relations of the individual. Furthermore, the time which the schools, especially those below the college, command for purposes of instruction has been pre-empted by the subjects with which teachers are familiar, and, as a result, young people get very little instruction about social and community life.

European nations are not failing, as is this nation, to give attention to training young people in the elementary school and the secondary school with respect to their duties as members of society. They are reorganizing the curriculum to teach nationalism. One cannot hold the European nations up as examples to be followed because social training in these nations is indoctrination in the ideology of the ruling powers. The example of Europe should impress us, however, because of the intensity of social training given to young people. Evidently there is clear recognition of the fact that the perpetuation of the dictated pattern of life can be assured only if the oncoming generations are thoroughly controlled in their thinking on all matters of social importance.

That the young people of this country are eager for light on all that relates to society is evidenced by the avidity with which college students elect courses in the social sciences. Since only a small percentage of young people reach college, however, and since even college students have been given no adequate background in the lower schools for their study of the social sciences, college instruction with respect to

social relations is, to say the least, limited in its influence.

More serious than the omission of social content in instruction is the failure of the schools to give proper attention to the cultivation of those powers of the mind that are essential to the highest social efficiency, to independence of thinking and fertility in invention. When specialization is the recognized goal of education, it is fairly easy to arrange the curriculum. One selects the subjects which prepare for the desired specialty, drills pupils in the modes of thinking and in the skills essential to the specialty, and is satisfied when learners, by concentration of effort, become proficient. The accepted formula of education in most American schools and colleges is the formula of requiring learners to fill their memories with statements that are true but not stimulating to independent thinking. The formula that learning means memorizing is adopted in professional and preprofessional courses to a degree that reduces the performances of most learners to the level of mere routine skills.

It is possible, I believe, to inject into education a new spirit by emphasizing the contrast between mere drill and the cultivation of broad understanding. Education cannot dispense entirely with drill. It has the obvious purpose of passing on to young people the best that the older generation possesses in the way of intelligent adaptations. The father in a primitive tribe helping his son to use a bow and arrow; the teacher in Greece or Rome giving instruction in

rhetoric to the boy who was to become a member of the oligarchy; the modern professor in college teaching his students the findings of science—all illustrate the desire of the older generation to give young people the best that it possesses. So long, however, as this process of transmitting what is at hand gives the learner a skill without full understanding of the origin, meaning, and implications of that skill, it may be said to train him without educating him.

The theory of education which emphasizes mere skill is an inadequate theory of human education. Such a false theory has received of late what is supposed to be scientific support. There is a very strong tendency in contemporary psychology to experiment on animals in order to establish the nature of the learning process. It is found possible, for example, to teach a dog. The trained dog can perform the tricks that have been drilled into his nervous system, but the dog never acquires an understanding of what he has learned. There are many of our fellow citizens who obey the law, pay taxes, and vote one of the party tickets. They are honest, productive citizens. They are, to use a phrase that has come into general use since Pavlov did his work with dogs, "conditioned." Pavlov drilled his dogs to react to the sound of a bell in intricate ways which need not here be detailed, although the sound of a bell is a wholly artificial stimulus. I was once urged by a leader in industry into whose hands an edition of Pavlov's book had fallen to develop the idea of con-

ditioned reflexes as the true formula for American education to follow. I replied that it is unnecessary to advocate the adoption of this formula; much of the training now given in schools is of the conditioned type. There is need for the adoption of a broader formula if schools are to give the best type of human education. Indeed, there is no more important duty for the psychologist and the educator than that of advocating the abandonment of Pavlov's formula, which is now very generally followed in American schools.

William James tells a story which illustrates perfectly the success of conditioning. The children in a school were asked by a visitor what they would find if they bored down in the earth toward its center. No answer was forthcoming; whereupon the teacher took a hand, saying that the pupils did not understand the question. "Children," she said, "what is the state of the interior of the earth?" The answer came in concert and with enthusiasm: "The interior of the earth is in a state of igneous fusion." Pavlov could supply no better example of one kind of learning.

I wish I knew how to save American education from excessive devotion to conditioning. I suppose it would be a calamity to banish conditioning altogether. I am sure that from his point of view Mussolini is right when he keeps Italian children marching on all possible occasions. I am sure that everyone in this country should be so drilled that he will

drive his automobile on the right side of the road. I am in favor of payment of taxes even by people who do not know why they pay them. Perhaps there are legitimate areas in which, for the time being at least, all of us must be directed into proper ways of life by being conditioned. I believe, however, that all the advantages of conditioning can be gained and its dangers avoided if we go about adding real understanding to all forms of training. We can do this if we develop a system of general education which includes specialized training, but puts it in its place as subordinate to intelligent understanding of what men do.

An illustration may help to make clear what is meant by the statement just made. If a boy is to be made into a mechanic, he should be taught the place of mechanical industries in the life of society. He will then be more than a mere mechanic. I believe that educational devices should be developed that are simple and direct enough to make clear to the tradesman his relation to what is going on in all the crafts and in all the social undertakings of his contemporaries.

It will be noted that there is no advocacy in this plea that there be enforcement on young people's minds of an ideology of a ruling class. There is no plea for a defense of the present industrial order. Intelligence dictates that all who are engaged in industry be given an understanding of what the existing industrial order is. The present order will undoubt-

edly change, and understanding will help individuals to adjust themselves to the changes that take place. Drill fixes habits; understanding makes one flexible and adaptive. The type of education which is here advocated is promising because it will keep people in the mood and attitude of learning not only while they are in school but also after they leave school. Adult education will become a reality when understanding keeps minds alive. The young people who are entering the professions need understanding of the industrial order no less than do tradesmen. Too often the members of the professional class do not know that they are part of the industrial order. Specialists are never broad when they are mere specialists. A specialist in theology can be as narrow-minded as a specialist in auto-mechanics, and he can add to his narrowness an indefensible pride of class which makes him a menace to community life.

The American educational system has an opportunity which no other educational system in the world has in like measure, of cultivating in students broad social understanding. If it is to take advantage of its opportunity, however, it must develop a body of instructional material which it does not now have. It must teach young people, from the earliest days of their schooling and throughout the whole period of their attendance on educational institutions, who they are and what society is. It must teach the findings of the social sciences in language that is intelligible to the ordinary individual.

Specialists in the social sciences sometimes say that it is quite impossible to introduce the ordinary individual to the intricacies of the social sciences. There were many natural scientists who took a similar position with respect to the findings of the natural sciences until Huxley and Tyndall with literary skill put the common people of England in contact with biology and physics. The day is at hand, I believe, when the people of this country will demand for popular consumption clear, understandable statements of the best that the social sciences have to give.

A full achievement of all that is to be hoped for in the way of general understanding of the social sciences will never be accomplished until young people are given in the lower schools ideas which will prepare them to think of social relations as the most important facts in life. The fourth, fifth, and sixth grades should instruct pupils with regard to the lives of the peoples whose habitations are described in the geographies. Pupils will thus gain a comprehensive view of their own ways of life. The junior high school should introduce pupils to the major products of civilization—government, industry, transportation, intellectual institutions, and social practices of all kinds. The senior high school and the junior college should prepare the way through general survey courses for later systematic studies of the social sciences no less than these schools now prepare the way for advanced study of physics and chemistry through their introductory courses in natural science.



If one third of the time of the lower schools could be given to general social studies of the types sketched, there would still be two thirds of the time of the schools for other purposes. Perhaps another third should be devoted to the cultivation of acquaintance with literature, fine arts, and the major outcomes of natural science. This does not mean that pupils should learn literature as they now do, as a subject preparatory to clerical careers. They should not spend three months reading a play of Shakespeare. They should have opportunity, if the aim of literary study is personal refinement, really to read literature as literature. Similarly, they should be taught the fine arts as means of personal refinement, not as specialties to be learned from the point of view of the producer. Orientation courses in natural science should be given to every citizen of a modern civilized nation.

If two thirds of the time of the school are devoted to social studies and cultivation of broad acquaintance with art and science, there will still be ample time for occupational preparation. Occupational preparation should, however, be intelligently directed and intelligently accepted. Trade training should be raised to the highest level along with professional training. This can be done by giving to trade courses the exact and fundamental background which is to be found in the mathematical sciences and the natural sciences. There is no more stimulating intellectual material in any of the liberal-arts courses

than that which is provided in the mathematical and natural sciences. When American mechanics and tradesmen become scientists, they will be far more efficient than they now are, and they will be no less highly educated than are students who have come up through the classics. Specialized vocational education takes on a wholly new meaning when it becomes the one-third part of a complete education.

The advantage of a threefold program such as is here outlined is that through such a program young people who are going into industries requiring manual skill will not be misled by being conditioned for professional and clerical careers, as they now are by the traditional secondary-school curriculum. The young people who are preparing for the professions and for clerical positions in the liberal-arts courses as now taught should be introduced to social studies and broadening studies quite as much as mechanics and artisans. Those who pursue arts courses of the traditional type should understand that the courses which they are taking are in reality vocational courses.

The division of the school curriculum into three parts to serve three purposes does not require that the work of each grade be divided into the exact fractions suggested. The lower grades, indeed the junior-high-school grades, should emphasize social understandings and breadth of thinking. They should give opportunity for much practice in the fundamental intellectual arts, such as reading and the use of numbers. There should be a sufficient range in

courses in the natural sciences to acquaint pupils with the principles on which modern civilization is based. In the later years of schooling the balance will have to shift in the direction of emphasis on vocational preparation.

It seems altogether probable that with the extension of the period of attendance on educational institutions which is inevitable because of the elimination of young people from gainful occupations, intensive and direct preparation for occupations can shortly be relegated to the junior college. Certainly for the great majority of pupils there will in the future be no justification for strictly occupational courses until a broad foundation of studies has prepared each young person to be first and foremost an intelligent citizen, a householder, and a personally refined individual.

The program for the schools which is suggested in the barest outlines in the foregoing statements represents a radical departure from tradition. It was pointed out in the early sections of this paper that the United States has been moving away from the exclusive aristocratic concept of secondary education. In attempting to formulate a new democratic education this country has been held back by the dominating prestige of outworn subjects. Nothing less than a heroic facing of the new intellectual problems that rise out of a new complicated civilization will make possible the complete renovation of the school program.

One hundred years ago there appeared a group of educational leaders—Horace Mann, Henry Barnard, Calvin Stowe, and John Pierce—who reconstructed the lower school. Some fifty years ago the spirit of the American people opened the door of the secondary school and of the college to all ambitious young people. The term “general education” is now justified and has for some time been justified as a numerical and quantitative description of secondary and higher education in this country. The upper schools are now “general” in the sense in which the common school has always been general. These upper schools are attended by all kinds and classes of people. It remains for our time to give to the term “general education” a new qualitative definition. It will be recognized by any careful observer of American education as now conducted that it is not “general” in the sense of being the kind of education which is appropriate to the great majority of young people who have to find their places in present-day civilization. It remains to be seen whether we can now throw off the fetters of tradition and adopt a plan of education which will fulfill the ambitions of those who made universal secondary education possible and opened higher education to all comers. General education, when properly organized, will leave time and energy for specialized vocational education; it will cultivate understanding of society and will prepare learners for participation in the highest achievements of civilized life—in lit-

erature, art, and natural science. When American schools include general education as thus defined, they will become qualitatively as well as quantitatively truly democratic in their spirit and organization.

## ONE HUNDRED YEARS OF ECONOMICS

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THE MODEST assignment given me is to review a century of economic development, with its accompanying evolution of economic thought—a century which has witnessed more significant changes than have occurred in all preceding history. In my earlier days as a student of economics I inclined to the belief that the first hundred years would be the hardest; but in the light of recent trends I have come to be troubled with doubts. The reasons for this timidity will, I hope, become clear as I briefly recapitulate the economic history of the last century.

I shall begin with a brief summary of the economic situation as it appeared in the 1830's, discussing in turn: (1) the general state of economic development; (2) certain movements for economic reform; and (3) the status of formal economic theory.

### ECONOMIC CONDITIONS IN THE 1830's

One hundred years ago we had passed through the first phase of the manufacturing era; but we had not yet reached the stage of large-scale business enter-

prise—except in a few fields chiefly associated with government enterprise. Railroad transportation had demonstrated its practicability, but was still in the infant industry stage. It is of interest to note, moreover, that it was not yet clear whether railroad development in the United States would be under public or private auspices. The only significant public utilities were the stagecoach and the town pump.

Notwithstanding the simple character of the economic system, we were in 1839 in the midst of a great economic depression which encompassed Europe as well as the United States. The American panic of 1837 was currently attributed to two factors: first, the overextension of public works in the form of turnpikes, canals, and railways, and the accompanying speculation in land; and second, a defective banking system. In the 1830's it was argued that the panic was due to the fact that we had a branch banking system instead of a unit or individual system of banks; whereas in the 1930's the financial breakdown was attributed to the fact that we had a unit instead of a branch banking system.

In England and France discussions of the economic system were along somewhat different lines than in America, primary emphasis being placed upon the consequences of the Industrial Revolution. Moreover, the argument was beginning to be advanced that economic crises may be the result of an inadequate purchasing power on the part of the masses of the people.

## REFORM MOVEMENTS OF A CENTURY AGO

A number of reform movements and experiments were in the air one hundred years ago. Robert Owen's co-operative industrial villages had been tried out—with indifferent success—both in England and America, the famous New Harmony experiment failing in 1825. Owen's emphasis upon the evils of child labor and the importance of old-age and sickness insurance, recreation centers, improved housing conditions, better education, etc., was nevertheless to have a lasting influence. Similarly, the harmonious agrarian communities of the Frenchman, Fourier—which were based upon the principle of permitting each individual to follow the pursuits for which he had a natural passion—had been experimented with both in the United States as well as in Europe.

The English Reform Bill of 1832 was directed rather to the lower middle classes than to the laboring population. The late 1830's, however, saw the development of the Chartist Movement of the masses. In addition to great extensions of the Reform Bill on the political side, the People's Charter stood for social and economic reforms, demanding "that all shall have a good house to live in with a garden back or front, just as the occupier likes; good clothing to keep him warm and to make him look respectable, and plenty of good food and drink to make him look and feel happy."

The French anarchist, Proudhon, in 1840 attacked one of the fundamental principles of the economic



and legal system in his book *What is Property?*, reaching the conclusion that property is robbery. The German, Karl Marx, an obscure student living in the Rhineland, was laying the foundation for the Communist Manifesto to be published ten years later.

The system of protectionism was apparently on its last legs. In the United States we had passed a tariff act in 1833 calling for a progressive reduction in tariff rates until a uniform twenty per cent level was reached in 1842. The repeal of the corn laws, or agricultural tariff, in 1844 placed England on a free trade basis.

#### THE STATUS OF ECONOMIC THEORY ONE HUNDRED YEARS AGO

General economic theory had reached what was regarded as an advanced stage a hundred years ago. During the course of the preceding seventy-five to one hundred years a group of writers in the fields of law, government, and economics, had gradually developed a systematic body of doctrine which in its interrelations constituted the so-called system of *laissez faire*. The conclusions which had been reached in these various fields were regarded as principles or laws of enduring significance.

In order to understand the significance of these developments in the field of the so-called social sciences, it is necessary to view them in relationship to the work that had been done in the field of the natural sciences. The great scientific discoveries of

the seventeenth century provided the philosophical foundations for the system of legal, governmental, and economic thought of the eighteenth century, and was responsible for the conception of the system of free private enterprise in place of the regimented activities of the mercantilist system. The key to the great transition from regulated to free enterprise is found in the conception of *nature's laws* with which the physical scientists were concerned. What about the human being? Was he not a part of the natural order of things and could he possibly realize his potentialities if his life were circumscribed by man-made restrictions which curbed his free-born spirit? The writings of Blackstone, Rousseau, Adam Smith, and others who formulated the principles of the common law, the science of economics, and the principles of government are permeated with the conception of natural law. And Jefferson, it may be recalled, prefaced the Declaration of Independence with an all-embracing reference to the separate and equal station to which the laws of nature and of nature's God entitle us. These men, drawing their inspiration from the great scientific discoveries of the preceding century, sought to apply the new-found knowledge and conceptions to social organization—to *invent* legal, economic, and political institutions in harmony with the universe of nature. The three remarkable events of the years 1775-1776—the application of the steam engine to industry, the publication of Adam Smith's *Wealth of Nations*, and the

writing of the American Declaration of Independence—were not mere coincidence.

The immediate consequence of the writings of the social philosophers of the eighteenth century was the establishment of the system of free business enterprise which characterized the nineteenth century. First, innumerable laws which restricted the freedom and initiative of the individual were repealed. Second, industry and trade were relieved from a multitude of hampering regulations. Third, national boundaries came largely to be ignored through the removal of barriers and restrictions against the free international movement of trade and currency and against the migration of people from country to country. There was born the conception of a world society, in which men should be free not only to develop their individual capacities to the utmost but also to live in whatever spot on the globe they desired and to conduct their business operations without reference to any national boundaries.

Adam Smith was followed by a series of economic writers who, by extending, amplifying, and refining Smith's general analysis, succeeded by the middle of the following century in formulating what may be regarded as a complete system of economic thought—the ultimate expression of which is found in Mill's *Principles of Political Economy* published in 1848.

As a background against which to consider recent economic conceptions, it is interesting to note the basic conclusions at which these earlier scholars had

arrived. The implications of their analysis were so somber that economics was long referred to as the dismal science. This phrase did not arise, as many have assumed, out of any difficulty or dreariness inherent in economic analysis; it reflected merely the drab outlook for humankind on a planet characterized by the "niggardliness of nature."

These early scholars concluded that the economic condition of the masses of the people at any given period and the degree of economic progress that might occur with the passage of time were controlled or limited by three fundamental factors: first, the land or other resources provided by nature; second, the accumulation of capital, that is, tools, machinery, factories, etc.; and third, the labor supply. Two of these factors were regarded, so far as expansion was concerned, as subject to severe limitations, while the third—the labor supply—was subject to a very rapid rate of growth which tended to defeat, so far as standards of living were concerned, whatever gains might come from the improvement in the other factors.

While new agricultural areas might be opened to settlement and new mineral, forest, or aquatic resources might be discovered, there were clearly ultimate limits to these resources. Moreover, the fundamentally important land resources were very definitely limited from the point of view of quality. The most fertile areas were in the main those first utilized and, as population grew, resort would have to be

had to poorer and poorer land. While improved methods of land utilization might serve to increase productivity, such increase was subject to the law of diminishing returns.

The supply of capital was limited by factors of a different type. In brief, its increase involved a choice between the *immediate* satisfactions that might be realized by devoting all our energy to the production of consumer goods and the larger satisfactions that might *ultimately* be realized if some of our resources were currently devoted to the production of capital goods in order to increase our future productive capacity. The growth of capital thus depended upon the ability and the willingness of individuals to make current sacrifices for the sake of future gains. Inasmuch as the great majority of human beings possessed the most meager standards of living and were, moreover, regarded as lacking in foresight, it did not appear likely that capital would be created at a rapid rate. Moreover, if capital should perchance for a time be increased with exceptional rapidity its use in conjunction with limited natural resources would inevitably result in a decrease in its marginal productivity. Hence its interest yield would decline, thus checking the tendency to further accumulation.

The labor supply, on the other hand, was subject to no such limitations. On the contrary, as a result of natural instincts, it tended inevitably to increase out of all proportion to the other factors of production. Hence population growth would necessitate a

continuous resorting to poorer resources, thereby tending to reduce living standards to the minimum of subsistence. While war and pestilence might serve at times to improve the balance among the factors of production, there appeared little hope for progressively rising standards of living—unless perchance “prudential restraint” might eventually serve to control the birth rate.

It was the geometric rate of population growth as compared with the arithmetic rate of growth of the other factors which not only gave to economics its awesome appellation, but also foreshadowed a grim future for the human race. Moreover, the conditions of life in China, India, and other old civilizations afforded striking illustration of the permanent tendency for population growth to exceed that of other resources; indeed, the very redundancy of the labor supply tended to prevent the introduction of machinery which would economize human labor.

#### THE CHANGES OF A CENTURY

The situation today is obviously profoundly different from that which was contemplated by the economic observers of a century ago. In a large part of the world, standards of living of the masses of the people have been raised enormously and the dire results of the laws formulated by our economic forefathers appear somehow to have been avoided. Instead of a conception of all-controlling scarcity, we are troubled with conceptions of abundance; indeed,

before the eyes of many is the specter of superabundance. The present resembles the past, however, in that technological progress is regarded as a menace to employment. Hence we are confronted with movements designed to check further technological improvements and to retard scientific discoveries.

The extent to which the economists of a century ago misgauged the outlook may be indicated by the fact that the population of Great Britain increased from 26.7 millions in 1840 to over forty-seven<sup>47</sup> millions a hundred years later; while that of the United States increased from seventeen<sup>17</sup> millions to nearly 130 millions. Meanwhile the per capita production and per capita income, both in England and the United States, rose three- or fourfold. In the thirty-year period from 1899 to 1929 per capita production in the United States increased by approximately forty per cent, notwithstanding an average reduction in the length of the working day of about thirteen per cent.

The primary factor in this phenomenal expansion in productivity has been the application of scientific knowledge to the processes of production. The economic potentialities of modern science could not be foreseen a hundred years ago; and this unknown factor in the situation explains the miscalculations of the economists. Emphasis has often been placed on such factors as the increase of specialization in production, the development of large-scale corporate organizations, and the widening of markets made pos-

sible by rapid and cheap transportation. But it was science and technology that made possible the new economic revolution. To understand what has happened, we must review briefly the results of scientific developments in such fields as agriculture and mining, where diminishing returns and rising costs were supposed to manifest themselves at an early date.

The increase in agricultural production has of course been due in part to the opening up of new productive areas during the course of the nineteenth century. But it should be noted that as late as 1900 there was acute fear of growing food shortage and consequent progressive increases in the prices of food-stuffs. In his presidential address before the British Association for the Advancement of Science, Sir William Crookes, in 1898, wrote that the question of food supply "is of urgent importance today, and it is a life and death question for generations to come. . . . England and all civilized nations stand in deadly peril of not having enough to eat. . . . Should all the wheat-growing countries add to their area to the utmost capacity, on the most careful calculation . . . [it] would give us only an addition of some hundred million acres, supplying at the average world yield of 12.7 bushels to the acre, 1,270,000,000 bushels, just enough to supply the increase of population among the bread eaters until the year 1931. . . . Thirty years is but a day in the life of a nation. Those present who may attend the meeting



of the British Association 30 years hence will judge how far my forecasts are justified.”<sup>1</sup>

Compare the present situation with this forecast. In recent years the price of wheat, in relation to the general level of commodity prices, has been well below the low level of the 1890's. Today throughout the world nations are concerned over the low prices of agricultural produce, and everywhere governments are subsidizing, by one means or another, the producers of foodstuffs. Instead of urban populations suffering from the rising costs of the primary necessities of life, it is the farmers who are suffering from the low prices of their products.

Raw materials, both agricultural and mineral, have also shown trends which are the reverse of expectations. Over the past twenty years raw material prices, in general, have fallen relatively to the prices of finished products. Instead of operating on the basis of increasing costs, the extractive industries—so-called—have been operating on a basis of diminishing costs.

The application of science to agriculture has been systematically carried on for approximately fifty years. Science has increased our food supplies in many ways. The development of agricultural meteorology, with the establishment of weather stations, the assembling of data by radio, telephone, and telegraph, and the preparation and distribution of fore-

<sup>1</sup> *Report*, Sixty-eighth Meeting of the British Association, 1899, pp. 2-38.

casts of weather conditions, have greatly reduced the danger of crop losses by enabling farmers to take preventive measures in advance of storms, floods, and untimely cold spells.

In the field of soil conservation much has been done to protect farm land from deterioration through leaching and erosion. The study of the nutritive requirements of plants and the development of better and cheaper fertilizers has increased yields. Such practices as contour furrowing to control water run-off, terracing, strip cropping, rotation, and weed control, not only conserve resources but also increase productivity.

Better control of plant diseases is another method by which farm productivity has been increased. Spraying and dusting have been used to attack certain forms of disease, while quarantine and destruction of infested plants have prevented the spread of disease. Still more important in this connection has been the breeding of disease-resistant species of plants. An example is the relatively new Thatcher strain of wheat which is highly resistant to stem rust. Much progress has been made in controlling insects which are injurious to plants, involving the use of poison sprays, dusts, and baits, the discovery and importation of "natural enemies," and improved methods of cultivation, as well as quarantines and destruction of infected material.

The fight against animal disease has also met with no little success. For example, it was discovered that

splenic fever in cattle is transmitted exclusively by the cattle tick, and eradication measures against this insect have greatly reduced the ravages of the disease. Vaccination and quarantine are among the other methods of fighting animal diseases.

Breeding experiments looking toward improved species have been important in increasing production of both plant and animal products. They have resulted in such advances as increased milk production per cow, more eggs per hen, and greater yield per acre in the case of plants. Another development has been the more efficient utilization of food products made possible by increased knowledge of nutritive values. All these increases in productivity are of course the equivalent of an expansion of acreage.

In mining, the use of scientific knowledge has not only increased the supply and extended the use of the well-known older minerals, but has also brought into use various minerals of which little or nothing was known in earlier times. These gains have been achieved by a combination of factors.

The discovery of additional deposits has been greatly aided by advances in mineralogy, geology, geophysics, and seismology, which make possible the accurate location of mineral deposits, existence of which would otherwise remain unknown. At the same time, already known deposits have been rendered available by deep mining machinery and by the scientific extraction of low-grade resources. Mineral deposits formerly unavailable have been ren-

dered accessible by modern developments in the field of transportation.

Similarly, improvements in production technology have increased the available supply of minerals. Adequate ventilation of deep mines protects the worker's health and increases his efficiency. The development of better explosive and blasting methods has not only reduced the amount of explosives required, but has also lessened the hazard to mine workers. New equipment, such as the pneumatic rock drill and electric machinery, has greatly reduced the cost of extracting minerals.

At the same time, progress has been made in the conservation of mineral resources. For instance, scientific methods have been introduced to permit a fuller recovery of oil reserves. Detailed studies of mineral resources have made possible more intelligent utilization with a minimum of waste.

Of paramount importance in the growth of economic productivity generally has been the development of new forms of power. Gas, oil, and electricity, together with steam, have brought such phenomenal increases in productive efficiency that some observers are wont to designate the great economic advances of our time as the result of a power revolution, power being looked upon as the equivalent of a new factor of production, comparable in importance to land, labor, and capital. It is more accurate to say that developments in the field of power have served

to multiply the productivity of the other factors, particularly capital.

#### THE SIGNIFICANCE OF CAPITAL INSTRUMENTS

The older economists always stressed the importance of capital. But when they thought of added increments of capital they usually had in mind the addition of like units or, at the most, of slightly improved capital instruments. They naturally could not foresee that as a result of scientific advances the new machines might have a productivity vastly greater than that of existing machines. As a result of scientific discoveries and their applications to industry, new machines often *multiply* the productivity of a dollar's worth of capital.

The increase in machine efficiency has come about in three principal ways: first, there has been a phenomenal increase in the size of capital instruments. For example, the increasing size of electric generators has not only greatly increased the total output of the plant but also the output per dollar of capital invested.

Second, progressive improvement in the design of tools and in the quality of materials enormously increases efficiency irrespective of the size of the capital instrument. The installation of new gadgets as attachments to existing machinery has a similar effect upon productivity. A comparison of the efficiency of the present-day automobile with its 1919 proto-

type illustrates the significance of the factors which we are here considering.

Third, the reorganization of the physical layout of productive establishments is almost as important as the size of the establishment itself. We have in mind such developments as the assembly line, conveyor systems for the handling of materials, and continuous manufacturing processes such as are exemplified in the so-called strip mill operations in the steel industry.

Such developments as these serve to increase productivity very much faster than the increase of dollar capital investment. Every improvement in productive efficiency is in effect an increase in the supply of capital.

#### HAVE WE OVERPRODUCTION NOW?

The great technological improvements that have been made in modern times have led many to conclude that we have reached such an advanced stage of scientific and economic development that we are menaced with permanent overproduction. Let me quote from an eminent British observer:

We have now, for the first time in human history, all the material resources and the human skill needed to provide both the necessities and comforts of life to the whole of the world's population; to support, indeed, a population several times as great at standards very much higher than any hitherto known; and to give to every man not only material wealth but the leisure and

opportunity which he needs to realize the full potentialities of his nature and enjoy the full heritage of the civilization in which he lives.

I might also quote from an American engineer who has asserted that fifty weeks a year, four days a week, and six hours a day—that is, a twenty-four-hour week and a two weeks' vacation—is adequate to provide the American people with all of their requirements.

What are the facts with respect to productive capacity? In 1929, the year of our greatest production, the total national income—which represents the value of the goods and services produced—was about eighty-one billion dollars. This is the equivalent of about \$660 per capita, or \$2,600 per family. Since income was not equally distributed, the great majority of families received very much smaller incomes than this average. Indeed, twelve million families, or forty-two per cent of the total number, had incomes of less than \$1,500; and sixty per cent of the families had less than \$2,000. At 1929 prices a family income of \$2,000 was sufficient to supply little more than the basic necessities required for health and efficiency; generally speaking, it provided no margin for comforts and luxuries of life. Budgetary studies indicate that the provision of "reasonable standards of living" would require an income nearly double that enjoyed by the masses of the American people in the year of our greatest production.

We were not, however, making full use of our existing productive facilities. The comprehensive investigation of America's productive capacity recently made by the Brookings Institution<sup>2</sup> indicated that we might have produced in 1929 something like twenty per cent more than we did produce. It is true, to be sure, that much scientific knowledge then available remained to be translated into actual producing power. Hence our *potential* productive capacity was somewhat greater than these estimates would indicate.

In the years that have elapsed since 1929, however, there has been an actual curtailment of national productive capacity, while at the same time we have had a further increase of population of some seven per cent. Per capita production in 1937 was only about eighty-five per cent as great as in 1929. The reduction in productive capacity during the course of the depression years is the result of our failure to make good the actual deterioration of plant and equipment that has occurred. Accordingly, we have much lost ground to recover. The immediate production task before the people of this country at the present time may be stated as follows: first, to make good the actual deterioration of plant and equipment sustained during the depression; second, to increase productive capital in proportion to the growth of population that has occurred; and, third, to expand the output of con-

<sup>2</sup> Brookings Institution, *America's Capacity to Produce* (Washington, D. C., 1934).



sumption goods in accordance with this growth of population.

The realization of the high standards of living to which we aspire is thus a problem for the longer future. With a rate of advancement equal to that prevailing between 1900 and 1930 it would take until the year 2000 to double existing standards of living. If we could achieve economic and political stability in the world at large and learn to operate the economic system in such a way as to effect a rapid dissemination of the benefits of technological progress, we should materially accelerate the tempo of economic progress.

#### IS THERE A BASIS FOR EXPANSION?

As we leave this survey of the past one hundred years of economic development and look forward to the next we must take note of a deep-seated pessimism with respect to the possibilities of further economic expansion. Just as observers a century ago foresaw a grim future because of the limits imposed by natural resources and increasing population, many students of economic trends today are concerned over the future—though, as we shall see, for very different reasons.

Among the forces and considerations lying behind this point of view the following deserve mention: first, the disappearance of the frontier; second, the substantial completion of the building of our great industries, with no significant new ones in sight; and

third, the declining rate of population growth, forecasting a stationary population in the not distant future. The severe and persistent character of the great depression which began in 1929 is also regarded as evidence that fundamental changes in the American economic scene have already occurred.

This point of view is perhaps a natural outgrowth of the prevailing character of American economic development over the course of the last century. We had vast unsettled areas and unexploited resources; we had a rapidly expanding population, resulting both from the birth rate and immigration; and we built a never ending series of new industries—railroads, public utilities, and manufacturing enterprises of every description. In the light of this history, and of the recent period of stagnation, it is easy to understand how it might appear on first thought that our future, so to speak, lies behind us.

A factor of vital importance has, however, been overlooked in this line of reasoning. Before looking forward, let us look backward for a moment and examine the sources of expansion in the past. Economic activity—the use of our labor power and our capital equipment—has always been directed to a double purpose: the production of goods to care for the primary needs of increasing numbers of people, and the production of increasing quantities of goods for the existing population. Stating the matter in individual terms, we seek not only to produce enough to provide our children with necessities, but we hope

to enable them, as well as ourselves, to achieve higher standards of living than were enjoyed by our forebears.

We may translate these general statements into specific terms by reference again to what actually occurred in the great era of expansion from 1900 to 1929. We did, it is true, devote our energies to the production of primary goods and services for a steadily expanding total population; but at the same time we were constantly producing more for the already existing population. In the course of this thirty-year period as a whole per capita income rose almost forty per cent.

Is it not obvious that a cessation of population growth does not make it necessary for us to refrain henceforth from producing more and yet more for the existing population? Are not the unfilled wants and unsatisfied desires of the present 130 millions of people just as real a source of potential demand as the elemental needs of those who might be born in the years ahead? The *character* of our productive output might differ in considerable degree, but the total output need not be affected—that is, not until our desires are fully satiated.

#### THE RELATIVITY OF ECONOMIC THOUGHT

The foregoing sketch of the vast economic changes that have occurred in the course of the last century naturally raises the question whether economics can be regarded in any sense as a science. Before endeavor-

oring to answer this issue, let me point out that the term *science* is in some ways ambiguous and confusing: to some it merely connotes a field of study—"the natural sciences"; to others it means a particular method of analysis; and again it often suggests a body of exact principles of fixed and unchanging character. What we are really interested in here is the *scientific* spirit, which is an attitude of mind. As William James expressed it: "I have to forge every sentence in the teeth of irreducible and stubborn facts."

The objective, openminded, scientific outlook need not of course be restricted to consideration of natural phenomena; it may and should pervade all other realms of investigation. Nor is there any single methodology or technique of scientific inquiry. There are as many different methods of observation, experimentation, and analysis as there are divisions of science; indeed, within the same field more than one technique may be employed, and even a single research project may require the utilization of a combination of methods. Galileo, Newton, Franklin, Darwin, Pasteur, Edison, Pavlov, Curie, and Mill employed widely differing methods of observation and analysis in arriving at their generalizations. They were alike only in the common purpose of deriving their conclusions from facts.

It should also be observed here that the conception of science as a body of exact knowledge, embodying principles and laws of eternal verity, has

in recent times undergone profound modification. The human mind, or rather spirit, longs for certainty; and it was the hope that as the proclaimed doctrines of the authoritarian age were overthrown the advance of science would unfold the laws of nature and reveal for our contemplation and satisfaction the ultimate truths of the cosmos. In the eighteenth and nineteenth centuries scientific writers in every field—in economics and law and government as well as in the realm of natural phenomena—sought to systematize and crystallize knowledge in a body of fixed principles.

But it has been found necessary as the years have passed, and especially in the last few decades, to qualify our former generalizations in the light of new knowledge and conceptions and also in the light of organic changes in the phenomena under investigation. This last consideration is of course especially the case in the social fields where institutions and processes have recently been undergoing rapid evolution. Nothing altogether endures; even mathematical analysis has undergone profound modification in the last half century. As summarized by Whitehead:

The progress of science has now reached a turning point. The stable foundations of physics have broken up. . . . The old foundations of scientific thought are becoming unintelligible. Time, space, matter, material,

ether, electricity, mechanism, organism, configuration, structure, pattern, function, all require reinterpretation.<sup>3</sup>

After John Stuart Mill published his great treatise on political economy in 1848, it was believed, in the Anglo-Saxon world, that almost the last word on political economy had been written—that Mill's analysis had rounded out a body of economic principles that would remain forever as an adequate explanation of the operation of economic forces. In 1848 economics was as settled and complete as the science of physics was considered to be in 1890.

In the ensuing forty years, however, a group of continental economists, chiefly Austrian, approached the problem from a somewhat different angle, giving much more weight to psychological factors affecting human conduct and hence the laws of value and distribution. In 1890 Alfred Marshall brought out his principles of economics which integrated the analyses of the Austrians with those of the English classical school and showed how the two might be harmonized.

Today a considerable part of the formerly accepted body of economic doctrine is subject to challenge. One reason is that the accumulation of a vast body of recorded data bearing upon economic issues has made it possible to test the validity of many of the assumptions on which the classical analyses were based. However, a more fundamentally important

<sup>3</sup> Alfred North Whitehead, *Science and the Modern World* (New York, 1926), p. 24.

factor has been the changing character of the economic system itself.

And here I come to a statement of what I conceive to be the basic difference between economics and the natural sciences. While the underlying principles of economics are based upon natural forces, the economic system by means of which productive activities are carried out is constantly undergoing evolutionary change. The natural sciences, on the other hand, are concerned with the observation of physical forces which are practically permanent in character. The complex economic machine which has resulted from certain natural laws and the growth of human institutions has undergone a rapid evolution even in the course of our own life-span. Time is not available in which to cite concrete illustrations of the way in which the economic machine has changed in character. It must suffice for the present purpose to point out that *as* it changes, economic thought must perforce be modified to take account of the working of the system under new conditions. A phrase—*the relativity of economic thought*—has been developed to indicate the necessity of an evolutionary body of economic thought paralleling evolutionary changes in the economic system.

While the study of economics is thus concerned with a living, changing, developing organism, it does not follow that it cannot be pursued with scientific objectivity. The primary objective of economics is to analyze the forces, factors, and conditions which

make for maximum production of goods and services. Thus there is a clearly defined test by which to gauge the results of economic policies; namely, their effects upon productivity. In analyzing the effects of economic policies upon wealth *production*, it is essential also to consider the distribution of goods and services because the way in which income is distributed may react back upon the productive process itself.

In the light of this conception, it is apparent that the conclusions reached by economic analysis are not mere expressions of personal preferences on the part of the author, or an evidence of conservatism, liberalism, or radicalism. The one fundamental assumption underlying economics is that increased productivity and progressively higher standards of living are desired by the people. Whether higher standards of living are good for people is a question which the economists properly leave to philosophers. Economics thus conceived is solely analytical. So long as the student of economics pursues, unwaveringly, the objective of ascertaining the effects of economic forces, factors, and institutions upon wealth production and distribution, he is proceeding in the true spirit of science.



## RELIGION IN THE LAST HUNDRED YEARS

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WHEN KING SOLOMON'S temple was a-building, we are told that the stone was made ready at the quarry, "and there was neither hammer nor axe nor any tool of iron heard in the house." The structure of the sanctuary of men's religious life in any period is built out of materials prepared in part at least by many other movements of the human spirit, and quietly, automatically, it is modified by them.

### I

John Henry Newman, in his *Apologia*, describing the success of the Oxford Movement, which was at its height just a century ago, speaks of "a spirit afloat" as the wellspring of that religious revival. This "spirit afloat" manifested itself in the Romantic Movement—a movement which took many forms in literature and art, and which in essence was a release of feeling from the confines of the Age of the Enlightenment, with which the eighteenth century culminated. The Romantic Movement was itself in part

the product of Pietism in Germany and of the corresponding Evangelical Revival in Britain. When, two centuries ago, Wesley and Whitefield insisted that the sources of vital religion lay far deeper than man's theological opinions in the warming and outflow of his heart, they opened a release for the emotional life penned up in the classical forms so highly prized by their contemporary culture. Reason had been exalted, and throughout the century beliefs had seemed to Christian people of paramount importance. The evangelicals did not deny the beliefs; they transferred the emphasis from the head to the heart. Then the emancipated feelings, in many realms beside the Church—in poetry, in novels, in architecture, in art, in a new appreciation of nature—broke forth into a creation of new forms or in a reappraisal of old forms.

During a considerable part of our hundred years, and to this day in certain places, vital religion has taken the form of an outgo of emotion. One thinks of the various revivals which in waves have arisen and subsided, particularly in our country. Obviously such inward liberation has its perils, and one might list bizarre and unethical accompaniments of these religious renewals. Fire is a dangerous and devastating force when it is out of control; but fire is one of the chief gifts of heaven, as the Prometheus story attests. Without this kindling of feeling no period can show any potent movements, and our hundred years have been rich in flaming crusades.

Romanticism awoke a fresh appreciation of the Middle Ages. In contrast one thinks of the interest of our colonial and revolutionary fathers in the Greek and Roman classics—of the names they gave their children and of the style in which they built their public buildings—their churches among the rest. The renaissance of Gothic architecture, of which Duke University's buildings are a signal example, is a fruit of Romanticism. Compare your buildings with many of those at Chapel Hill, and you see the difference. It is interesting to trace an ancestry back to John Wesley's religion of the heart in the architecture which some of his spiritual descendants employed for this university. Our country is full of Gothic or near-Gothic churches which have a subtle effect in modifying the simpler forms of Protestant worship, which belongs in the post-Gothic epoch.

Romanticism through the Oxford Movement recovered for English-speaking Christians on both sides of the Atlantic the hymns of the Medieval Church. Almost every one of the translations with which we are familiar was made within our hundred years. *Hymns Ancient and Modern*, published in 1861, in both its title and contents set a pattern followed more or less closely by the standard hymnals of all the churches. No one can estimate the result in making Protestants aware of their inheritance of the Christianity of all the centuries, and not merely of that particular segment of it in the few centuries of the life of the communion to which they belonged.

The Romantic Movement awakened the Roman Catholic Church in Europe and brought a number of distinguished thinkers and men of letters into its fold. As liberalism spread, the Church of Rome stiffened in its opposition. In 1864 Pope Pius IX issued a syllabus condemning eighty current heresies, and in 1870 the Vatican Council formulated and decreed the dogma of papal infallibility. While liberalism, which had its sources in the eighteenth century, continued to advance throughout the nineteenth, it encountered and in part helped to produce a powerful reaction. Authoritarian movements in religion, exalting the Church, or the historic creeds and confessions, or the literally interpreted Bible, had many vigorous adherents.

Romanticism made man aware of new depths and heights in his own nature. This stimulated interest in the inner life, and prepared the way for the development of the science of psychology, which later on was to have a marked influence upon religion, particularly in the realm of religious education. And it also brought Christians a new source of assurance for their faith. In the preceding period one heard much of the evidences of Christianity—and these were usually historical proofs such as fulfilled prophecies and miracles, or proofs drawn from traces of a divine plan in nature. But the Christian now turned inward and found his own heart, as Sabatier phrased it, "incurably religious." Faith was an ineradicable and developable instinct, bearing witness to a cor-

responding spiritual environment. The chief proof of the Christian Gospel became the experience of God which it opened up to its believers. As a popular hymn, sung again and again throughout our period, expresses it:

I love to tell the story,  
Because I know it's true:  
It satisfies my longings  
As nothing else can do.

It became a commonplace that religion was not beliefs but life, and a life which validated itself to those who possessed it.

At the outset of our period the missionary movement was in full swing. Christians were keenly aware that their life with God through Christ was so satisfying and so indispensable that they must share it with every man. The true defender of the faith became not the theologian who could argue for it, but the missionary who spread it. David Livingstone expressed the conviction of his generation and the next, when he said of Christianity that "it requires perpetual propagation to attest its genuineness." Our hundred years witnessed probably the greatest expansion of Christianity in its entire history, as Christians carried it to Asia and Africa and the islands of the Pacific. The opening up of new lands through exploration, the rapid development of the means of travel, the interest of African and Asiatic peoples in Western civilization, assisted this movement; but

the force behind it was the enhanced appreciation of the Christian life. The missionary motive swiftly changed from that of rescuing imperilled millions from perdition to the enrichment of all men with the unspeakable gift of Christ and of eternal life with God through Him.

## II

A second factor, closely allied to Romanticism, which has been a potent influence throughout the past century is *the historical method*. It also had its birth in the closing decades of the eighteenth century in the work of such men as Lessing and Herder. To begin with, it was a reaction against the abstract and artificial manner of viewing history then prevalent. But as the method grew, it underwent a change and became a more exact investigation of the origin and development of the subject under study. When scholars applied this to Christianity, they brought about nothing less than a revolution in the Christian view of the Bible and of the relation of the Church and its creeds to Jesus Christ.

During the first part of our period Christians generally regarded the Bible as throughout the inspired Word of God, and theoretically they placed all its contents on the same level of divine authority. Their practice was usually superior to their theory, and their spiritual insight led them to stress the loftiest portions of the Scriptures. But the theory of verbal inspiration accounted for many things which Chris-

tians defended on the ground of a Bible text—human slavery, capital punishment, the inferior status of women, and many other beliefs and practices. When they began to view the Bible with the new eyes furnished by the historical approach, it became the record of a progressive revelation of God. At once they ceased to place all its contents on the same level. Jesus Christ became the climax of a long development, rendering obsolete for them much which had been taken as the Word of God. It was the Christ-like in the Scriptures which became the Self-disclosure of the Father, whom they saw fully in His Son. Few periods in Christian thought have seen so momentous and so enriching a change. It made the Bible a Christian book, which it can hardly have been said to have been when it was read as though Leviticus or Joshua were as authoritative as the Gospels.

Nor was it less revolutionary when the existing churches—their beliefs, their ethical codes, their forms of government and worship—were compared with the recovered historical figure of Jesus of Nazareth. Few books were more popular among Christians in the latter half of the nineteenth century than lives of Christ which portrayed Him in the setting of the Palestine of His day. It is fair to say that probably in no preceding age had devout people a more vivid picture of the human Jesus in their minds and hearts. They discovered that many items in the creeds were not in His faith, and that many usages on which the churches had insisted meant nothing to

Him. There was a general reappraisal of the religious heritage, and a serious effort to Christianize thought and life by bringing both into accord with the mind of the Christ of the Gospels.

The same historic method was applied to the study of non-Christian religions. They, too, were reassessed. It had been customary for Christians to divide the faiths of mankind into true and false, Christian and heathen. The non-Christian religions were now regarded as stages in the development of human fellowship with the divine. Christians viewed the Gospel of Christ as the consummation of that fellowship. This sent missionaries out not to destroy but to fulfill.

There was another aspect of the historical method which plunged all the churches into controversies, some of which survive to this day. Scholars used literary criticism in their study of the Biblical documents, showing the composite character and disproving the traditional authorship of some of them. They pointed out that they were written in ages which did not have our ideas of natural law or of historic exactness. Hence they contained legends and tales and poetic utterances which obviously could not be interpreted with the literalness with which most Christians had been wont to view them. These Christian scholars sincerely strove to render the Bible more intelligible; but it is doubtful whether they have made it more significant. For a variety of reasons the Bible has become less read, and its contents are less familiar



among us today than they were a century ago. In the latter decades some religious educators have accorded it a smaller place in the Sunday School curriculum, and they have not favored the memorization of its great passages. Preachers have given their messages in topical rather than expository sermons, and many congregations seldom are instructed in the contents of the Scriptures in any thoroughgoing fashion. Fifty or even twenty-five years ago the historical method was used in the pulpit, and ministers gave biographical discourses on Biblical characters, or took up the contents of a book in a series of sermons, or dealt with the development of Old Testament prophecy, or with the teachings of Jesus. But apparently both Biblical knowledge and interest have waned. With the widespread disappearance of family worship and the very scanty reading of the Bible in schools, its figures and incidents and phrases are no longer in the minds of boys and girls. It would seem that one task of the next hundred years should be a restoration of the knowledge of the Bible as the classic expression of the progressive self-revelation of God.

Nor have these controversies which arose from the employment of the historical method been confined to Protestant Christianity. Newman used the idea of the development of Christian doctrine as a means of justifying Roman Catholicism. In its full modern flowering it was, he argued, implicit as seed in the primitive Church of the New Testament and inev-

itably burgeoned out of it. But this idea of development has never been palatable to many in the Roman Church; and when later Roman Catholic scholars, about the turn of the century, employed the methods of historical criticism on the Biblical records and upon the creeds and institutions of the Church, there was an outcry against "Modernism," which resulted in its official condemnation by Pope Pius X.

### III

The past century has witnessed enormous strides in the physical sciences with vast consequences for the practical life of mankind. This scientific advance could not fail to exercise an immense effect upon religion.

During the first half of our period the leaders of science and the men of faith were in frequent and bitter strife. Darwin and others took the idea of development, brought forward by historians, and applied it in their theory of organic evolution. His *Origin of Species*, published in 1859, was followed by years of controversy over the credibility of the Biblical narratives of the Creation and the Fall. Only a decade ago we had the belated outcropping of the issue in a trial in Tennessee. Unquestionably many of the advocates of the evolutionary theory were at fault in drawing metaphysical conclusions from scientific data, and their theological opponents were at fault in using the Biblical records as scientific documents. Towards the end of the century eminent

Christian teachers accepted the theory of evolution as an explanation of how the physical cosmos and living forms and man had developed, and contended that evolution was apparently God's method of creation. In recent years it has become customary to say that the sciences investigate the *how* of the universe and religion is concerned with the *why* and the *what for*. Physical scientists are no longer the embattled foes of Christian faith, and many of the foremost of them are devout believers. But during a large part of our period thoughtful Christians found it extremely difficult to be both honest in facing the results of the sciences and loyal to historic religion. The Church lost a number of men who but for this would have served in her ministry, and many of the more intelligent in all lands left her fellowship.

One result of the scientific movement was an emphasis upon the unity of life under the universal reign of law. It had been customary to separate life into distinct areas—the secular and the sacred, the natural and the supernatural. This distinction largely disappeared in our period, with results both good and bad for religion. Christians tried to make the secular sacred by bringing it under Christian principle; but secularism kept invading the sacred. The holy day became a holiday. Education freed from theological domination became education in which no spiritual interpretation of life found a place; in consequence, life for many of the educated was left meaningless. Christians insisted that so-called “natural laws” were

man's labels for the ways in which God usually works; but secularists omitted any such explanation, and assumed that nature was self-sufficient. Naturalism was throughout our period a chief foe of religion. Christian thinkers affirmed that God is everywhere present and active in His world, and the doctrine of divine immanence played a large role in the thought of the century. But the emphasis on God's immanence, without a corresponding stress upon His transcendence, left Him a rather nebulous being. Many found it difficult to conceive Him as having personal relations with them. In the later decades certain thinkers, still claiming the Christian name, gave up belief in God as the Lord of the universe, and reduced Him to a personification of the spirit of goodwill in humanity. Their god became man viewed as progressing towards perfection in character and in the control of his physical environment.

But for steadfast Christian believers the scientific movement enriched their idea of God. He greatened with the vaster conception of the cosmos. His faithfulness was attested by its reliable and orderly nature. Some thinkers strove from a study of the cosmos to rise to the character of its Creator. *Through Nature to God* was the title of a widely read book by the evolutionist John Fiske, and Henry Drummond wrote a popular small volume on *Natural Law in the Spiritual World*. But as our century wore on, it was recognized that a personal and moral, much less a Christian, deity could not be found

through the ambiguous data in our known world. The religious experience came to stand in its own right, and God was known by those who lived with Him in trust.

And not from nature up to nature's God,  
But down from nature's God look nature through

became the approach to the cosmos on the part of the intelligently devout.

The historical theory of development and the scientific theory of organic evolution, together with the very considerable advances in human well-being due to inventions and discoveries and the opening up of new lands, made our period almost to its close optimistic. In a letter to Lyell, Darwin spoke of "Natural Selection, and as a general consequence Natural Improvement." The most popular poets, Tennyson and Browning, above all the typical American poets Emerson and Walt Whitman, were singers of boundless hopes. Our country was a land of opportunity, in which colossal fortunes were amassed and the majority of the population lived in considerable comfort. Religious folk believed firmly in the goodness of God, but above all in the divine capacities of man. Emerson's "Trust thyself: every heart vibrates to that iron string" was the expression of the cardinal conviction of American Christians. There were many lamentations over the disappearance of the sense of sin. Hymns which spoke of earth as "a vale of tears" were laughed at. Life for most people

seemed good. The world appeared an escalator, automatically bound upward. Everyone believed in progress, and wished to be called progressive. In retrospect from our present grimmer day, the religion of most of our epoch seems shallow. But it was exhilarating. The churches of this country were active. Their members were not meditative, nor particularly reverent, nor depending on divine resources. They were in step with the *tempo* of their day—interested in “forward movements,” enlisting in “campaigns,” expanding their congregations with growing communities, founding new churches as the frontier moved westward, and in the rapidly populating sections of their extending cities. They were vibrantly confident of latent powers in themselves, and the aim of religion was to give those powers fullest employ.

Religious optimism at times went to extreme lengths. Certain cults denied the reality of evil and pain altogether. Starting from such assertions as “God is all” and “God is good,” they found no place for disease or weakness or sin. These were “errors of mortal mind.” Cults of this sort flourished and drew numerous adherents; but their permanent contributions to the religious life have been negligible. A much saner and more scientific movement has resulted from the recognition of both physicians and religious leaders that a wholesome spiritual condition has its effects upon the physical life. Clergymen and psy-

chiatrists and other physicians have co-operated in dealing with the ills of many patients.

## IV

The eighteenth century started still another trend which continued through our entire period. It asserted the rights of man and produced both the American and French revolutions. The democratic movement in politics increased in volume up to the Great War. The dignity of man was basic in Unitarianism, which was not so much a denial of the divinity of Jesus as an affirmation of the divinity of every man. And this emphasis was so swiftly assimilated by the other churches that Unitarians found themselves often without a distinctive message and never became a numerous ecclesiastical group. Humanitarian efforts were characteristic of nearly all the churches. The social settlement, which took a more privileged group to become neighbors of those in a slum, was born in the Church, although towards the end of our period almost all settlements ceased to be under religious auspices or to carry on a religious ministry, in order that they might give themselves to the social necessities of folk of varied faiths or of no faith. The institutional church was another development aimed to meet many more needs of its constituency than their need for conscious fellowship with God. Almost all the voluntary philanthropic movements of the epoch—hospitals, asylums, Christian associations, charitable societies—were sponsored

and largely supported by Church people. Christian humanitarianism attacked such evils as slavery, alcoholic intemperance, prostitution, and the exploitation of children in industry. The churches were behind various reforms in government, in the treatment of prisoners, in the public administration of relief. Directly or indirectly religion furnished the motives and the consecration requisite for campaigns on behalf of civic righteousness and the rescue and care of the neglected and oppressed.

In the latter half of our century even these efforts were felt not to deal as radically as the Gospel demanded with the wrongs of society. Under the leadership of such men as George Herron, Josiah Strong, and Walter Rauschenbush the basic assumptions of the economic order were challenged. They and their successors were more thoroughgoing in their analysis of the sins of the capitalist system than had been the earlier Christian socialists, F. D. Maurice, Charles Kingsley, and their followers. The newer social gospellers assailed the profit motive in business, the conception that enlightened self-interest could be a guiding principle in a Christian commonwealth, and they challenged the currently accepted notions of the rights of property. Salvation was not for them the rescue of individuals out of an evil world, but the attempt by the Spirit of Christ to bring into being a new world ruled by love. They exercised a transforming influence upon the churches, putting new hymns and prayers into their public worship, and



directing their energies towards changing the relations between races and nations and establishing justice in political and economic life. While the optimistic mood prevailed, a social utopia seemed to many Christians to be within the range of their abilities. They were crusaders building Jerusalem in their own green and pleasant land.

The social application of the Gospel was stimulated by the realization on the part of ecclesiastical leaders that the churches, and especially the Protestant churches, were failing to reach the underprivileged elements in the population. The unskilled laborer, migrant workers whose employment was casual and precarious, and the propertyless classes in general, were untouched by their religious appeal. In Europe the laboring groups had come under the influence of the philosophy of Karl Marx, and were either indifferent or hostile to religion. These ideas came to this country with the immigrants who poured in by the million in the latter part of the nineteenth and the first decade of the twentieth century. A considerable section of organized labor showed itself critical of the churches. Denominationalism tended to break up the religious elements in our American communities along class lines and prevented institutional Christianity from being a socially unifying force. The churches were impotent in the face of industrial strife. They made efforts, here and there, through forums to bring the frank discussion of economic questions before their own constituency and the wider

public. And while it cannot be said that they have captured the allegiance of the class-conscious worker, church people are being educated to understand social problems and some of their leaders are taking conspicuous parts in movements for social justice.

## v

We have been dwelling on factors in the life and thought of our period which had important consequences in religious beliefs and practices. Within the Church itself a number of new developments arose which had potent effects upon its work. The Sunday School had been founded to reach the children of the poor and illiterate; but in our century it became a very active and prominent part of every congregation, to which all parents with even a faint religious interest sent their children. By the middle of our epoch its work was supplemented and continued by the formation of societies of young people, which met with a swift popularity and an enormously rapid growth. The young came to the fore in the life of the churches and were given the utmost consideration. They did much to break down the formality which had characterized services of public worship and to transform the churches into centers of social life.

Ours has been a period in which the relations of parents and children in the home, and of teachers and students in school and college were changing. The older generation was trying hard to be comradely with the younger. Barriers of traditional respect for

the authority of age were swept away. Fathers and mothers sought to be "good pals" with sons and daughters. Instructors were insisting that they were fellow-seekers after truth and companions in study with their pupils, rather than official transmitters of knowledge. By the latter part of our epoch the former gulfs between the generations had been surprisingly filled up and they were meeting on a level of equality. This had a subtle effect upon religion. If God be primarily considered as Father, then the content of human parenthood will be the content of the divine name. The typical American father was unlike the Jewish father of the time of Christ. The elements of authority and awe had gone from the parental relation. If Christ be thought of as Master and Teacher, the new relationships in school and college would affect the sense in which those words were used of Him. There was a familiarity in men's relationship with the divine. The devout had been spoken of as "God-fearing," but that designation did not fit the devout of our period.

The equalitarian friendliness of the American community gave its churches a different atmosphere from those of the Old World, and from their predecessors in an earlier America. This difference was apparent often in the structure of the church edifice. Where means permitted, rooms of various sorts were added to enable groups to meet in social intimacy. European churches seldom had "church parlors." Here congregations strove to be sociable, to make strangers

feel at home, to provide fellowship for their own members. Worship in the Protestant communions lost much of its former austerity. It was a gathering of a household before the Father, and a most friendly Father. Its devout exercises were valued for their heartiness, rather than for their reverence. Circular arrangements of seats often supplanted the stiff pews and straight aisles of a former style. The music of choir and congregation took on the patterns of the part-song popular in the music of the day.

All this had its effect upon the character of the religion cultivated in such churches. It was man-centered. Worship was thought of not as an offering to God, but as a means of inspiring the worshipers. Psychologists, who by the later decades of our century were turning their attention to the religious life, stressed this emphasis by appraising hymns and prayers and sermons in their effects upon religious experience. Churches were not thinking of what they were doing for God, but of what they did for the spiritual lives of men, women, and children. To be sure the Christian God is always served through His children, but the emphasis upon the children may be so exclusive as to banish the thought of an enrichment to God.

It is fair to say that many both within and without their fellowship regarded the churches chiefly as social agencies. They were classed with lodges, associations, and various friendly societies which promoted the welfare of their members and of their communities.

Their distinctive religious function in furnishing conscious fellowship with God, in begetting and increasing His life in men, and supplying Him with dedicated representatives in whose individual and corporate thought and labor and sacrifice He could manifest Himself and redeem the world, was often minimized.

## VI

When, at the outset of the last quarter of our century, the Great War broke, it came as a shocking surprise to the hopeful and socially minded folk in the churches. Many, if not most of them, had come to believe that war between civilized and nominally Christian peoples was no longer possible. The ages of such barbarism were in an outgrown past. Leaders of the churches had backed disarmament programs. They coveted for purposes of social welfare the sums they considered wasted on the building of needless battleships. The war shattered the optimistic world in which they lived. It brought on painful searchings of conscience. Could a follower of Jesus Christ engage in war? Events in Europe moved too swiftly to permit much discussion of the question there, although in Britain a courageous group upheld the pacifist position. But in this country for almost three years it was a foremost topic among Christian people.

By the time this country entered the war, President Wilson, himself an outstanding churchman, phrased the issues for which the Allies were fighting in a form which commended them to the majority of his fellow-

Christians. The number of conscientious objectors was relatively small. All the churches gave their support to the government; religious organizations like the Young Men's and Young Women's Christian Associations, the Knights of Columbus, and kindred Jewish groups, set themselves to work for the spiritual and physical needs of the soldiers and sailors.

At the close of the war, the overwhelming majority of church folk favored the League of Nations. They had told themselves that this had been a war to end war, to bring in a regime of fellowship among the peoples of mankind, and the League seemed to them a means of achieving this end.

The events of the post-war years were bitterly disillusionizing. There had been hopes of a religious revival; but instead there were signs of religious indifference and sometimes of apostasy. The prevailing mood was one of cynicism rather than of faith. The victory of Communism in Russia, with its militant attack upon all religion, came as a startling blow. Some leaders attempted to soften it by stressing the social program in Russia and by belittling the Orthodox Church as an anachronism. Then came the rise of Fascism in Italy, and later in a more acutely anti-religious form in Nazi Germany; and the Christian Church found itself facing, more sharply perhaps than at any time since the days when the Roman Empire demanded worship of the reigning Caesar, an antagonistic political and social philosophy in the totalitarian states.

In Anglo-Saxon lands, and especially in this country, democracy had been held as a religious ideal. To be sure Christianity cannot be necessarily associated with it, for the Christian Church has flourished under various forms of government. But the Hebrew-Christian tradition, more than any other single force, had furnished the threefold faith on which democracy rests: faith in the capacities of the common man, faith in the self-evidencing power of truth, faith in the cosmos as favorable to a society which aims at human brotherhood. It teaches that every man is made in the image of God, that a plain Man, a Galilean carpenter and member of a subject race, embodied the fulness of the Godhead and that in union with Him all men can attain like spiritual stature. It teaches—and here it affirms part of the legacy of Greece—that truth is an aspect of God, and that to hamper the search for it or impede its frank statement is to attempt to fight against God. It teaches that the Lord of the cosmos is the Father of all men, and wills that they should use the earthly heritage He furnishes them in justice and kindness. Totalitarianism, in both its Communist and Fascist forms, denied these convictions. It suppressed freedom of conscience, demanded utter obedience to the existing leaders of the authoritarian state, proclaimed the supremacy of one class or of one race, and either attempted to exterminate the Church or to reduce it to abject submission to the civil government. The liquidation of the bourgeois elements in Russia and

the brutal persecution of the Jews in Germany, and to a lesser degree in Italy, are two of the most hideous national crimes on the dark pages of human history. They could only occur where the powers in control had completely thrown over the basic religious belief in man as a child of the Most High God.

The confusions and disillusionments of the post-war epoch have produced profound changes in Christian thought. These emerged first in Continental Europe, where the man-centered faith of the nineteenth century gave place to faith in God vastly above and unlike man. There has been a theological revival in Eastern Orthodoxy. In Protestant thought the new emphasis upon the divine transcendence has met with widespread acceptance in Britain, in Christian circles in the Far East, and is increasingly felt in this country. There is a return to the older acknowledgment of man's sinfulness, corrupting all his best endeavors. There is a denial of the inevitability of progress, and a recognition that our world can as readily grow worse as better. There is a refusal to identify with the kingdom of God any human social order, however ideal: man's best will stand under God's judgment as faulty, and of His kingdom He must be the Builder, although He employs men to bring it to pass. Confidence in man's power has disappeared in face of the demonic forces dominant in the contemporary scene—nationalism, racialism, class spirit, the drives of an acquisitive economic system. There is a rebirth of humility before God on the part



of Christians aware of their involvement in a guilty world and of their responsibility for its injustices and oppressions.

These changes in thought have scarcely had time to show their effect upon the life of the churches. But there are signs of change. In Roman Catholicism there has been a liturgical revival led by the Benedictines. And in Protestantism worship is becoming once more God-centered: it is not primarily cultivation of religious experience in the devout, but an offering to God of their penitent and grateful thought and love, that He may be Lord of their corporate and individual lives, and use all for His ends. Church edifices erected since the war are more dignified. Church music at leading universities and other influential centers is ceasing to be sentimental; the nineteenth-century style of tune and anthem is being discarded in favor of the sterner standards of an earlier day, and there is a revival of plain-song, carols, the chorale, psalm tunes, and the more somber melodies of the Welsh Churches. The God, whom Christians worship, is Father, but He is the holy and righteous Father before whom Jesus bowed, and His love both judges and redeems. In His august presence speech and music need austerity to express reverent awe. The developments of the previous years will not be lost, nor will some of the extremes of the current reaction in religious thought, particularly in Continental Europe, become prevalent, but there is a

deeper and more serious quality in the life with God sought by the devout of today.

For the issues between the new pagan and the historic Christian interpretations of life are sharply joined. The frontiers dividing Christian and outsider were often blurred during the earlier part of our hundred years: there were relatively few militant foes of basic Christian convictions and fewer still of Christian principles. But today on a worldwide stage the battle is on. In some lands a cruel persecution of Christian leaders has begun and the spiritual independence of the churches is denied. But the Church has not always been the weaker for persecution. Some who a few years ago spoke disparagingly of the churches and their ethical leadership are today hailing men of faith as possessors of the only stalwart consciences which refuse to bend to the new despotisms. The bewilderments of our times have shaken man's brash and jaunty self-assurance, and made him wistful for a wisdom and strength above his own, if such there be. This is the atmosphere in which many a time in the past the fact of God has become manifest. These bewilderments are driving Christians to a completer dependence upon Him and a more resolute determination to be loyal to His word revealed in Christ. Against the appalling brutality of the godless views of life, the Gospel shines out anew in its divine uniqueness as the sole hope of an else doomed world.

Faced with the urgent spiritual needs of our day,

the churches are forming a common front. The oecumenical movement has brought into being the World Council of the Churches, in which all the communions of Christendom, except the Roman Catholic, are officially represented. This is the first time since the Great Schism in 1054 that Eastern and a large section of Western Christianity are combining for a united witness to the Gospel, for united worship, and for united effort to bring the world's life under the sway of Christ.

As opposed to the romanticism prevalent throughout most of our period, our age prides itself upon its realism. Up to very recent years this realism has been blind to spiritual realities. But for the last two decades realistic folk have been compelled to confess that man's command of material forces has outstripped his moral growth, and that he seems the victim of factors of his own creation of which he should be in control. The failures of the post-war years have brought home to practical minds that there is not enough conscience and goodwill to make proposed devices for economic and international fellowship succeed. Men with terror in their hearts realize the desperate plight of contemporary civilization, already more barbaric than a former generation dreamed it could become, and threatened with another World War more frightful and destructive than the last.

This is the situation in which our hundred years find us today. But at the outset of our period (in

1829 to be exact), Thomas Carlyle published an essay on *Signs of the Times*, in which he said: "All men are aware that the present is a crisis. The distemper is of pretty regular recurrence; and may be reckoned on at intervals, like other natural visitations; so that reasonable men deal with it, as Londoners do with their fogs,—go cautiously out into the groping crowd, and patiently carry lanterns at noon; knowing, by a well-grounded faith, that the sun is still in existence, and will one day reappear."

For the Christian Church both lantern and sun, the immediate light upon its next steps and the luminary which she believes floods a whole world's life with God's sunshine, is Jesus Christ. Can she so present His Gospel to the heart and mind of a no longer complacent generation that our present darkness may give way to the dawn of a day of faith and love?

## SCIENCE AND BELIEF

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INASMUCH as belief expresses point of view regarding questions of major or minor importance, while science represents organized knowledge concerning realities, it is clear that development of close relation between them will often be in considerable part a personal matter. But the fact that it is desirable for the individual to guide his beliefs by what is learned from inquiry concerning realities makes it worth while to consider relations between the two. Especially in these days, when we think hopefully regarding the importance of government based upon judgment of the people, foundations of personal belief become enormously important.

One may not overlook the fact that any discussion concerning this subject must begin with recognition of the almost endless range of science, as also of numerous and widely differing kinds of belief, illustrated in such fields as economics, philosophy, politics, and religion. These beliefs may represent fundamental convictions that tend to guide conduct, or may be limited to personal matters having no general re-

relationships, but through all beliefs is the personal view, and through all science is the necessity for organization of facts and formulation of laws.

Although the functions of science concern specifically the acquisition, organization, and interpretation of new information, it is a part of the responsibility of scientists to see that the contribution from these activities has its application in human life in as many useful ways as possible. Unfortunately certain types of human interests that rank high in our thinking are commonly looked upon as rather widely separated from the field of science; such are, for example, results of thought that concern fundamental philosophical beliefs and our religious conceptions. But the points of view represented by modern philosophy, science, and religion seem to require at least some consideration of relations among these several phases of our thinking for the purpose of determining whether this relation may not in some measure help to clarify the view in each field.

At this time of multitudinous and wide-reaching studies on the relation of science to human life, it is not to be expected that any single statement will contribute much that has not already been the object of careful consideration. For this reason it is difficult to make any paper more than a discussion of discussions, but even on that basis there seems to be excuse for centering attention on this particular question. Perhaps, among many problems concerning the place of science in present-day civilization there is as strong a

reason for stressing its relation to matters of belief as for considering its touch with any of the many features generally considered of great importance.

No one may question the contributions of science in a vast field of elements that furnish things needed for maintenance of life, for opening opportunity to better our position in the world, and for contributing to the comfort and hope which seem in part the mission of religion. Technological contributions of science, as for example through chemistry applied to food, medicine, and even raiment, are all of the first order of value to us; but in final analysis of our desires and wants, it is hard to conceive of anything that can take higher place in life than that which determines in formulating our fundamental ideas as to what is significant and therefore may serve as a guide to conduct.

Beliefs may depend upon how we view things, or upon the basic materials from which they are constructed. Wishful thinking may be important as a means of developing imagination and initiative, but it does not necessarily become either creative or constructive. While the human mind may develop things that have not previously existed, in general it does its constructive work by use of materials already known but handled in new ways.

So our basic beliefs are most securely founded when they rest upon comprehensive views of realities around us in the present, or are developed out of a

realistic past, or from materials in the course of evolution to a realistic future.

Shaping of the mind so as to see things only in certain ways may produce pictures which appear real to the observer, but are not susceptible of verification by any other person. Such conditions must be recognized for what they are, and the persons concerned dealt with according to their points of view.

In considering the relation of science to society one of the most important questions concerns the difference between formulation of beliefs on the basis of emotional interests or desires, and shaping of beliefs or ideas or ideals resting upon a foundation of realities. Assuming that individuals or groups have a right to desire things for personal reasons, there may be question whether as a matter of fundamental belief, or of the foundations of belief, they have the right to rest their ultimate conclusions or decisions upon hopes or desires rather than upon realities or facts checked by careful thinking. Application of these points of view may be found in the most critical fields of human thought, whether in business, philosophy, government, or religion.

While one may not assume that the decisions on all of the greater questions are to be made on the authority, or guidance, or leadership of science, it may nevertheless be true that methods used by science are necessary also in operation and in definition of objectives in other fields of human interest such as philosophy, religion, economics, and government. In



general it has seemed true that the kinds of foundations upon which science is built have proved useful in other fields of thought.

In considering some of the most fundamental problems relating to belief it is desirable to note that with advance of knowledge, we have reached a stage at which there is recognition of man, his being, his attitudes, his thoughts, as not to be separated wholly from the universe of things and of minds in which he lives. We have been born out of this vastness. Whether or no, as Wordsworth has suggested, we come "trailing clouds of glory," we present an interesting reflection of what is about us and what has preceded us. Our attitudes of mind and even our beliefs are influenced by the greater things of present and past existence as we come to know them.

The scientist asks mainly that there be allowed for what is believed the opportunity of exposure to values coming from broad vision of what is and has been, in a world of things and people now seen as infinitely more complex and more wonderful than the universe as known in any previous age.

We know well that science does not reach to the end of an infinite past, or an infinite future, or of infinite space. It does not fully understand the atom, the chromosome, inheritance, environment, the creation of the earth, the inner regions of the sun, or the intimate history of spiral nebulae. It is distinctly limited in every direction, but it is quite aware of this, and is satisfied to build slowly outward and upward.

It does say that each of us lives in a universe that seems marked by unity and by continuity in meaning. If this be true, what the scientist finds contributes not merely to atomic physics, or Cambrian palaeontology, or endocrine physiology; it contributes also toward understanding of the world of things and of people. It may change our point of view in many ways, even to giving us more faith in the order of the world in which we live, or perhaps more hope for the future of humanity.

We note in these days a vast complex of statements, opinions, programs, and organizations arising out of the effort to interpret the place of science in modern civilization, its responsibility for exceptional situations of the present, and its possible contribution toward development of better conditions for the future. In this we see that science helps to check belief, to furnish foundations for belief, and sometimes to indicate the attitude of conservatism if one is to maintain a reasonable position.

Considering this question broadly, we may well inquire whether science does not tend to give a surer knowledge of things commonly included in so-called belief, or at least a knowledge in which we do not overestimate values. This might be true in the sense that it gives us a surer and more satisfactory knowledge of fundamental aspects of the world about us, and perhaps of what resides in it or is behind it.

Another form of inquiry that is raised sometimes concerns the question whether human belief is more

strongly influenced by contemplation of the works of man or through evidence furnished by works of the Creator. After many years' research, it is my view that appreciation of nature heightened by scientific study exerts a great influence upon fundamental human convictions. This new view of the world strengthens our belief in the orderliness and law-abiding nature of the universe. It gives us more faith in the nature of the universe and what we might expect from it. This is not guarantee but is the evidence upon which faith is built. It is the kind of belief that does not answer all questions categorically, but gives answers which are the basis upon which one may build.

It is desirable to appreciate the fact that the relation of science to belief is only a part of a larger scheme of interrelations between or among subjects or fields, each important in itself, but commonly held separate. The time is here when advance of knowledge requires careful attention to interrelation and synthesis, as well as to analysis. In such consideration nothing is lost from component elements, but commonly there is gain for all.

Without assuming for science anything beyond what it sets out primarily to do, one may still say that "science gives us a sure approach to knowledge, a widened and deepened field of vision over space and time, and added appreciation of the meaning in it all. Science opens the past for our inspection, and reveals creative activity in operation. It leads us to those doors that open out upon the unclear vistas be-

yond which we call future. And it invites us to build from the elements already revealed a faith that should not be disturbed by tides of years, nor by doubt concerning regions not yet fully known.

"As I see the situation, the science, philosophy, art, and religion of the future should be built in such manner that each may contribute its part to a structure that will give a safer and more pleasant abode than any that man has thus far designed."

In a study of the Grand Canyon many years ago I was impressed especially by the extraordinarily clear evidences of interrelation among the major features of interest in that fascinating region. And in a paper entitled "The Unity of Nature as Illustrated by the Grand Canyon," I could not refrain from noting that the earliest expression of this view of unity seemed to appear in theological literature, presented in the idea of one God in Nature instead of many warring deities.

It has seemed to me that "one of the greatest advances of all time was that expressed, ages ago, in the view that there is in the universe one power in many forms, or, in terms of religion, one God instead of many conflicting deities. It may be in order for mankind to make this discovery anew, or from time to time, when unity in views of the world and in belief seems threatened by erection of too many temples to deities of varying and perhaps inconsistent missions, in a world that, so far as nature is concerned, has operated as one system since time's beginning."

We recognize today a tendency toward development of relations bringing mutual advantages of interpretation in the various subjects of both the sciences and the humanities. We see also closer connection among all fields of thought wherever located.

It is not to be expected that any one phase of constructive thinking will come to dominate the others. But it is desirable that there be such relation among them that each may profit by advantages to be derived from the others. Perhaps the relation between science and belief may prove to be one in which broad views concerning the world and its purposes, and regarding great human questions, may be formulated with care as matters of belief, and in which science will be able to aid in shaping these views on the basis of reality and law.

# SOCIO-CULTURAL TRENDS IN EURO-AMERICAN CULTURE DURING THE LAST HUNDRED YEARS

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## I

WE OFTEN hear that European and American cultures are profoundly different: that one is old while the other is young: that their historical routes have already separated and therefore their destinies are bound to be different. Some of those making such assertions find the European culture superior, while others think that the American culture is better. Is such a widely accepted opinion valid? Are these two cultures indeed fundamentally different? Is the American culture younger than the European?

So far as the secondary characteristics of these cultures are concerned there is no doubt that they are different in many respects. But in regard to these secondary traits, no less different are the cultures of England and Italy, of France and Germany. Even different regions of the same country have many secondary differences in their culture. Various social classes and groups of the same region, the same city,

or the same town differ from one another in hundreds of cultural traits. The problem concerns not these secondary differences but the essential characteristics of both European and American cultures. When the question is put in that form, the answer is that *in spite of some three or four centuries of geographical separation there has been and still is only one, the Western or Euro-American culture, identical on both continents in all its essential traits. Being essentially identical, it is of the same age on both continents, not a bit younger in America than in Europe. As such it changes along similar lines on both continents, and passes in this change through the same main phases and exhibits similar tendencies. So it was during the seventeenth and eighteenth centuries, and so it has been during the last hundred years.* Such is my thesis.

In order to demonstrate the validity of this thesis it is enough to take the main compartments of Euro-American culture and concisely, yet accurately, to note the essential trends that unfolded themselves during the last hundred years on both continents. Such a comparison shows that indeed the trends have been identical. In a shorthand formula, both cultures and societies continued to move farther and farther from the ideational or otherworldly culture of the Middle Ages and from idealistic or half-otherworldly culture of the centuries from the thirteenth to the seventeenth. Both have been becoming more and more sensate or thisworldly—empirical, utilitarian, hedonistic, materialistic, economically

minded, divorced from any otherworldliness, denying its reality and value, and rooted entirely in the reality of a sensory world.<sup>1</sup> In the twentieth century both cultures have reached a kind of a limit in this shift towards sensate culture and are at the present time in a deep and tragic crisis of transition. Such is the summary of the road traveled by Euro-American culture during the last hundred years and its present position on this road.

Now let us take several compartments of the culture and see whether the trends have indeed been similar on both continents.

We shall begin with the simplest compartments.

1. Externally, on both continents we have had a growth of urbanization, industrialization, and mechanization, with all the numerous satellites involved.

2. On both continents we have had a replacement of manufacture by machinofacture; of small-scale industrial production by large-scale; of animal- and man-power by steam and electricity.

3. In the field of *social relationships* the nineteenth century witnessed on both sides of the Atlantic a decline of familistic and compulsory relationships in all fields of social life in favor of contractual relationships. Since the war period on both continents we observe a decline of contractual relationships in favor of partly compulsory and partly familistic relation-

<sup>1</sup> For substantiation of this thesis see my *Social and Cultural Dynamics* (3 vols., New York, 1937). In the same work a detailed analysis is given of all the trends briefly mentioned here.



ships. This formula is accurate; but since to many it may sound somewhat hazy, let us exemplify it in more comprehensible terms.

A. In the *economic* field the nineteenth century witnessed the rise of the capitalistic system on both continents. The capitalistic system is but a contractual system of economic relationship between the parties involved. In contradistinction to a compulsory slavery or serfdom system, or the system of relationship of the members of one good family, the capitalistic system rests upon a contract between the free parties, employer and employees. In this contract both parties agree, one to perform certain services, the other to pay a certain wage for them. The parties are neither tenderly attached to one another as are the members of a good family, nor does one party coerce the other to render its services as in a compulsory system. As a consequence of the triumph of the capitalistic system we had a liquidation of serfdom, slavery, the plantation system, and the patriarchal and coercive systems on both continents. Likewise, mere results of capitalism were free trade, laissez faire, economic liberty, economic and social individualism, and a host of other consequences of the triumphant contractualism. One of these was a rise of the material standard of living on both continents, as well as a development of the trust and corporation economy in the overripe stage of capitalism.

B. In the *political* field the growth of contractualism has led to the well-known phenomenon of re-

placement of the partly patriarchal, partly coercive autocratic regimes by the democratic political systems, with the government contractually elected, contractually limited in its power, and contractually obliged to respect the inalienable rights of man and citizen, his liberties, his equalities and his individualism. As a detail of this process, religious liberty of the individual was established, and with it, all the elements of theocracy were swept away from the governmental systems, in New England as well as in the greater part of Europe. The trends in the nineteenth century were again common to both continents.

C. In the field of *social relationships* the rising contractualism signified a growth of individualism generally. As each citizen was assumed to be free and equal to the others in the contractual system, the nineteenth century was to a great extent the age of moral, social, economic, and political individualism. This phenomenon again took place on both continents in spite of fairly frequent assertions that American individualism is the product of the frontier and the pioneering spirit.

D. The post-war period is marked on both continents by a profound crisis of contractualism. This decline of contractualism has shown itself on both continents, first, in the crisis of capitalism, and, second, in a decline of the individualistic *Weltanschauung* generally, and in economic life particularly. The wide diffusion of the philosophies of collectivism, communism, socialism, the corporate state, and racial

collectivity is but another aspect of this crisis of individualism. This decline of contractualism has become apparent in an expansion of governmental control and regimentation on both continents. In different forms and in different degrees this expansion has occurred in Europe as well as in the United States. Hundreds of economic, social, and other relationships that in the contractual nineteenth century were left to the decision of the individual, are now compulsorily regulated by the government. In the dictatorial countries the government now decides all and the citizen has only the privilege to obey this decision or go to prison, if he insists upon his inalienable rights of man and citizen. To a lesser degree, this expansion has also taken place in this country, especially in the field of economic relationships. The governmental bureaucrat is replacing more and more the free entrepreneur of the nineteenth century. The government has been entering business directly more and more; it has been regimenting business indirectly more and more; and it has been imposing an ever increasing number of obligatory regulations upon the employer and employees and upon every other agent of the economic process. Viewed in this light, the fact of expansion of governmental regulation as well as the fact of the crisis of contractualism on both continents is unquestionable. The degree and the concrete forms of these processes differ from country to country even in Europe, but the process itself has again been Euro-American.

I have mentioned only economic and political relationships, but I could have mentioned equally changes in the family, in the unions and associations of various kinds. It suffices to say that their "evolution" during the period considered has been similar on both continents, even in such details as increase of divorce and instability of the family, increase of childless marriages, and so on.

4. This leads us to the field of vital processes and the movement of the population. Here again the main processes have run identically: on both continents we have had an extraordinary natural increase of the population in the nineteenth century, due mainly to the falling death rate; an increase of suicide; and, beginning with the end of the nineteenth century, a falling birth rate which has made the present population of Euro-America virtually stationary or even decreasing in some countries.

5. Finally, on both continents we have had during this period an increase of social mobility—vertical and horizontal. Hereditary aristocracy has been virtually abolished. In its place we have had a rise to power of the rich capitalistic bourgeoisie, and of the middle class with its intelligentsia and professional groups: lawyers, engineers, professors, writers, and the like. More recently, in both societies we have an increasing effort of the laboring classes to get a larger share of the power and societal income and to drive out the rich and the middle class from the dominant

influential position in the political, economic, and social life of the country.

Without further evidence, it should be obvious that putting aside the secondary differences, the main social processes have been similar in Europe and in the United States.

## II

Turn now to the changes in culture, by which I mean science, art, philosophy, religion, law, ethics, mores, modes of conduct, and the whole mentality that lies behind these objectivizations. Here again the trends have been even more similar than in the foregoing social processes. Their general nature has consisted in the same trend, the Euro-American culture becoming less and less ideational and more and more sensate.

1. On both continents we have witnessed the rise of *science*, manifested in an enormous increase of scientific discoveries and technological inventions during the period considered. The only difference is that the comparative share of the United States in all the natural science discoveries and technological inventions has been growing systematically from 1.1 per cent of the total in 1726-1750 to 25.3 per cent in 1900-1908, and probably to a still higher per cent at the present time, while respectively the role of Europe has been decreasing. On both continents the universities, research institutions, and schools generally have been rapidly increasing, again faster in the United States than in Europe. But these are

secondary differences. The main point is that both Europe and America have been progressing in science and technology; both have elevated science to the level of religion, and have seen in it the main hope for the future.

2. Parallel with this growth of science, a profound but similar transformation has taken place in the *field of the system of truth and philosophy*. The truth of faith—the divinely revealed truth of religion—has been declining rapidly, and the empirical truth of senses, based on the testimony of our sense organs, has been rising. Science is mainly an embodiment of the truth of senses, while a superrational religion like Medieval Christianity is mainly a system of truth of faith. The growth of science involved this process of change from one system of truth to another, and it ran parallel on both sides of the Atlantic. In its more detailed forms this fundamental trend manifested itself in several narrower and more specific processes.

A. There was a decline of religious rationalism, mysticism, and fideism in favor of empiricism in its many diverse varieties: empiricism, empirio-criticism, positivism, neo-positivism, logical positivism, realism, neo-realism, pragmatism, instrumentalism, “operationalism,” and the like. This decline of mysticism also partly favored the growth of criticism, agnosticism, and skepticism.

B. There was a decline of idealism in favor of

materialism in its open and milder form and in favor of monism or pantheism.

In the second volume of my *Social and Cultural Dynamics* I have shown these trends and have attempted even to appraise roughly the amplitude of these fluctuations. For Europe they are rather certain. Have they also taken place in the United States? The history of American thought and philosophy answers the question positively.<sup>2</sup>

American philosophy of the seventeenth and part of the eighteenth centuries was an embodiment mainly of truth of faith, whether in its Calvinistic branches (John Cotton, the two Mathers, Boston Platform of 1680, etc.), or in its mystical and idealistic currents embodied in such persons as Mistress Anne Hutchinson, Roger Williams, Jonathan Edwards, John Woolman, William Penn, Conrad Beissel, Thomas Hooker, John Eliot, and others.

In the eighteenth century this truth of faith began to decline. Calvinism began to lose its grasp, as did other varieties of the truth of faith. Their place began to be taken more and more by Arminianism and Methodism and then by Deism, by the beginning of free thought, and by materialism (J. Priestley and others). Deism in its destructive form has little of the truth of faith and a great deal of the truth of

<sup>2</sup> See W. Riley, *American Thought: From Puritanism to Pragmatism* (New York, 1915); V. L. Parrington, *Main Currents in American Thought* (3 vols., New York, 1927-1930); P. Sorokin, *Social and Cultural Dynamics* (New York, 1937), Vol. II. See the bibliography in these works.

senses. Free thought and materialism are openly inimical to faith and try to embody the truth of senses only. Benjamin Franklin, Thomas Jefferson, Thomas Paine, J. Priestley, and others mark this period. In the nineteenth century this trend towards empiricism, materialism, and truth of senses became the main current, bringing us to the present philosophical systems wherein truth of faith is almost absent. Empiricism, pragmatism, instrumentalism, logical positivism, neo-realism, "operationalism," and the like now dominate the scene.

This does not mean that here or in Europe the idealistic and even religiously rationalistic and mystical systems of philosophy entirely disappeared. They certainly continued to exist on both continents but as ever smaller currents. The main current of philosophical thought has been as indicated above and it has been going on in both societies.

If we pay attention to more detailed phases and currents of philosophical thought during this period, the result is still more instructive: any important current of philosophical thought of one of the societies has almost invariably been echoed by the other. In Europe we have had a rise of Kantian and Neo-Kantian criticism: we have had it here also. In Europe Hegelianism had its great day. America responded to it by the St. Louis School of Philosophy (William T. Harris and others). In Europe there was a period of Comtian and Spencerian positivism and then Darwinian-Spencerian evolutionary philos-



ophy. We had it here also, and John Fiske, J. Mark Baldwin, and Lester Ward were its apostles. Beginning with the end of the eighteenth century Europe entered the religion of perfectionism and progress, with Turgot, Condorcet, St. Simon, Comte, Spencer, Lessing, Herder, and the English Deists as its prophets. America reciprocated by the emergence of Unitarianism, perfectionism, and so-called transcendentalism (not to mention all the professors and salesmen who became devotees of progress). Europe developed "return to nature," romanticism, and romantic individualism of various types (Rousseau, Carlyle, Stirner, and later Nietzsche and Tolstoi, to mention but a few names). America echoed it by so-called transcendentalism with Emerson and Thoreau as the main leaders, and by the back-to-nature movement, with Edgar Allan Poe, Walt Whitman, and Herman Melville as representatives of various aspects of this movement.

The end of the nineteenth and twentieth centuries has been in Europe the age of domination of empiricism and critical positivism in their various forms (Mach, Avenarius, A. Rey, H. Poincaré, P. Duhem, K. Pearson, Vaihinger, Riehl, Cohen, Rickert, Windelbandt, and others). America paralleled it by American empiricism, criticism, pragmatism, instrumentalism, operationalism, neo-realism, and other similar philosophies (Charles S. Pierce, William James, Santayana, John Dewey, Perry, Whitehead, P. Lewis, Lovejoy, and others).

Again, it is obvious that the character of philosophical currents and the main trend of philosophical thought have been quite similar in both societies.

3. In all the fields of *art* the trends have likewise been similar in both societies.

A. In *architecture* the main styles of America,<sup>3</sup> namely the Colonial (the Medieval-Colonial, the Renaissance or Georgian Colonial, the Pennsylvania Dutch, the German, the French, and the Spanish Colonial), then the Early Republican, and the Romantic Revival (Gothic and Romanesque)—around 1830—were but a reproduction of the respective styles of Europe and ran practically parallel in Europe and the United States. Then on both continents came the era of the eclectic architecture, followed at the end of the nineteenth century by an emergence, under American leadership, of the steel and reinforced architecture as a great new step in the development of this art. From America it has spread over Europe. Finally, so-called modernistic architecture appeared also on both continents. In a word, the dynamics of architecture have been quite similar on both continents.

B. This similarity of trends is even truer of *painting and sculpture*. American painting emerged at a period when the European painting had become definitely visual, striving to depict the objects as they

<sup>3</sup> For American architecture see G. H. Edgell, *The American Architecture of Today* (New York, 1928). Edgell's bibliography is valuable. For other aspects of architecture see my *Dynamics*, Vol. I, chap. xi.

look to our eyes (instead of an ideational or symbolic painting where the picture is only a visible symbol of the invisible world, as it was in the Middle Ages). Correspondingly, its characteristics and phases of development have been, even including details, practically the same as that of European painting and sculpture. It could not be otherwise, since most of the artists of the colonial periods, all the "Limners,"<sup>4</sup> were foreign born, and since a great part of the artists of the nineteenth century were also born in Europe (Ingham, Thomas Sully, Thomas Cole, A. Bierstadt, Thomas Hill, Keith, Leutze, John G. Brown, John S. Sargent, and others). Others, like James Whistler, spent their childhood and most of their life in Europe, and still others—almost all the rest—got their entire training or part of it in Europe. With appropriate modifications, one can say of them what was said of John S. Sargent: "An American, born in Italy, educated in France, who looks like a German, speaks like an Englishman, and paints like a Spaniard." Under these conditions to expect that American painting can be different from that of Europe is unreasonable.

Shall we wonder therefore that in most of the histories of American painting (and sculpture) the authors classify their artists under such headings as "The English Influence," "The Düsseldorf Influ-

<sup>4</sup> For factual history see E. Neuhaus, *The History and Ideals of American Art* (Stanford University, Calif., 1931). See the bibliography also.

ence," "The Munich School," "Figure-Painters of French Training," "The Barbizon School," "The Romantics," "The Impressionists," "The Expressionists," "The Neo-Classicians," "The Realists," "The Modernists" ("Post Impressionists," "Cubists," "Constructivists," etc.)? The very classification indicates the similarity of the American painting with this or that school in Europe. Indeed, any important current in Europe has found its creative echo in this country, and the succession of various dominant schools in American painting has run parallel with that in Europe. One may compare Reynolds, Gainsborough, Hogarth, West, and especially David in Europe, with Copley, Gilbert Stuart, Trumbull, and Thomas Sully in America; Poussin, Claude, and later Turner, Constable, and others in Europe, with a large group of the landscape painters in America, beginning with the Hudson River School and ending with the American painters of spectacular scenery: Church, Bierstadt, Moran, Hill, and others. Further comparisons may be found in the so-called Barbizon School in Europe (Rousseau, Corot, Daubigny, Dupré, Millet, and others) and George Inness and his followers in America; the romantic reaction to neo-classicism of David in Europe (Delacroix, Gericault, and others in France, and the Düsseldorf School in Germany) and the similar romantic wave in America. The subsequent neo-neo-classic reaction to romanticism in Europe was followed by a similar current in America (W. Chase, Duvenec, Eakins,

F. D. Millet, G. Melchers, and others). The rise of impressionism in Europe was paralleled similarly in America (partly Sargent, Whistler, John Alexander, Ben Foster, Charles Davis, J. Weir, and especially Theodore Robinson, J. Twachtman, Charles Hassam, W. Metcalf, and others). Finally, the rise of modernism (expressionism, constructivism, cubism, pointilism, dadaism, etc.) in Europe has been paralleled in America (Bellows, Robert Henri, G. Lucks, Kent, Arthur Davies, Zorach, De Muth, and others).

This does not mean that America simply imitated Europe; it does mean that since Euro-American culture is one and indivisible, it pulsates similarly on both sides of the ocean.

American and European paintings have been of the same species; not only in style but even in their content they have been similar and have undergone identical changes, including details, during the last century. My study of European art shows that the eighteenth and the first half of the nineteenth century were marked by an ascendance of portraits, in the total number of paintings of all kinds.<sup>5</sup> The same period was mainly a portrait painting era in America. The nineteenth and twentieth centuries have been marked in Europe by a strong and persistent increase of landscape and genre in the total number of paintings in Europe. The same is true for America. Further on, in portraiture, my study shows that in

<sup>5</sup> See the data and statistics in my *Social and Cultural Dynamics*, Vol. I, chap. x.

contradistinction to the centuries from the ninth to the seventeenth when primarily the royalty, aristocracy, and clergy were depicted, the eighteenth, nineteenth, and twentieth centuries witnessed in Europe an enormous decline of portraiture of royalty, aristocracy, and clergy and an enormous increase in the number portrayed of the bourgeoisie, professionals, intellectuals, and finally, of the lower classes. If we take the history of American portraiture from this standpoint, we can see that it conforms with that of Europe for the last two centuries: American portraits are mainly of the bourgeoisie, of intellectuals, and the professional classes with some sprinkling of the lower classes. While Sargent painted mainly the well-to-do classes, the later painters treat mainly laboring types and the like.

The similarity also holds for the proportion of male and female portraits in Europe and America.

Furthermore, in the genre picture for the last two centuries European artists have increasingly painted, first, everyday and common scenes, and then the macabre, negative, and pathological types and events (street urchin, criminal, prostitute, etc.).<sup>6</sup> In the earlier, medieval centuries, art depicted mainly the supersensory kingdom of God and of the saints; or, in the centuries from the thirteenth to the fifteenth, partly ennobling and elevating events and types. A glance at the history of American painting and sculpture is sufficient to see that during the last century

<sup>6</sup> For all this see my *Social and Cultural Dynamics*, Vol. I.

it depicted, like the contemporary European art, mainly the daily events, the common type of persons, such as "Sand Card," "Blacksmith," "Stag at Shark-ey's," "Cozy Corner," "Bathers," "Mountaineer," "Surgical Clinic," "Miners," "Sunday Morning at Mines," "The Skaters," "Light-house Keeper"; and then increasingly, the pathological or exotic types and events: "Street Urchin," "Prostitute," Indians, Hawaiians, Negroes, Mexicans, and so on and so forth. American art, like European, has been increasingly a "muck-raking" painting.

Like the contemporary European painting and sculpture the contemporary American art in this field exhibits similar chaos and styles, similar modernistic efforts, similar "muck-raking" and prosaic mentality in the choice of its topics. In brief, one is hardly distinguishable from the other.

C. So far as there has been a grand American *music*, it again has spoken in the idiom of the European music of the respective period (MacDowell and a few others). Contemporary American music—the Gershwins, the Copelands, the Harrises, the Carpenters, the Hills, the Pistons, and others—is but a variety of the modern European music. On the other hand, jazz, originating in America, has successfully spread over Europe. In their character both musics are almost exclusively secular. Their heroes—when, as in opera, there are heroes—are neither God, nor great and noble types of human beings, but rather a common man, a pathological man, or romantic and exotic

personalities: comedians (Petrushka), clowns (Pagliacci), smugglers (Carmen), pregnant women (Gurliede), brigands (Robert le Diable), crazy person (The Emperor Jones), and the like. Similar is the situation in drama, which has also become an exhibition of human pathology, as in the plays of O'Neill and many others.

D. Finally, American *literature*, in form as well as in content, has passed through the same phases of transformation as European literature.

The literature of the seventeenth century was an *alter ego* of English literature for the simple reason that its representatives (James Smith, William Bradford, John Winthrop, Roger Williams, Anne Bradstreet, Michael Wigglesworth, John Cotton, the two Mathers, Samuel Sewall, and others) were practically all immigrants.<sup>7</sup> Religious works reflected similar currents of Europe; histories and travels and diaries reflected respective Elizabethan or later histories and travels (e.g., R. Hakluyt's *Principal Navigations*, and a large similar literature in other countries, Samuel Pepy's *Diary*, etc.). Likewise, many a literary figure of the eighteenth century, like Thomas Paine, or de Crèvecoeur, was also an immigrant, while others, like Benjamin Franklin, spent a great portion of their time abroad. All were influ-

<sup>7</sup> See W. F. Taylor, *A History of American Letters* (New York, 1936); Carl Van Doren, *The American Novel* (New York, 1922); Parrington's quoted volumes; V. F. Calverton, *The Liberation of American Literature* (New York, 1932). See bibliography in these works.



enced by many European writers and thinkers, like Calvin, John Locke, Wollaston, Shaftsbury, Isaac Newton, Godwin, and others. Therefore whether it is the historical and narrative literature (W. Byrd, de Crèvecoeur) or religious (Jonathan Edwards, Woolman, and the Mathers), or political writings (Franklin, Paine, Dickinson, Hamilton), or poetry and satire (Freneau), each form and current was but a modified variety of a similar current in Europe. Poetry and the emerging novel did not represent an exception to this rule. Anne Bradstreet's *The Tenth Muse* is a piece of Elizabethan literature; Wigglesworth's *Day of Doom* was only one of a number of similar religious works in verse in Europe of the seventeenth century.

Charles Brockden Brown, Washington Irving, James Fenimore Cooper, and their followers were American manifestations of the wave of romanticism represented in Europe in many forms by Rousseau, Goethe, Chateaubriand, and others, and especially of the English literary romanticism embodied in Samuel Richardson, Smollett, Fielding, Mrs. Radcliffe, Horace Walpole, Byron, Mary Wollstonecraft, William Godwin, Wordsworth, and Sir Walter Scott. Edgar Allan Poe finds his counterpart in Europe in Hoffman, Coleridge in part, and the Gothic novels. To the same romantic stream belongs Herman Melville in the first part of his writings (*Typee*, *Omoo*, *Mardi*, in part), while Melville, the philosopher of *Moby Dick*, reflects the perennial pessimistic philos-

ophy of immanent evil and man's struggle against it, a philosophy which about that time was articulated in Europe by: Gogol, Lermontov, Byron, Schelling (second period of his writings), de Maistre, Schopenhauer, Leopardi, Baader, Renan, Goerros, de Bonald, Tolstoi, Balzac, Herzen, Dostojevsky, Vigny, F. Alvarado, R. Wagner, E. v. Hartmann, Nietzsche, Baudelaire, Renouvier, Ibsen, Taine, Nordau, Lombroso, Turgenev, Maupassant, and others. The same can be said of the second, pessimistic, period of Mark Twain—the Twain of the *Mysterious Stranger*, *What is Man?*, and *Personal Recollections of Joan of Arc*—and the pessimistic philosophy of Nathaniel Hawthorne and Henry Adams.

When we pass to Emerson, Thoreau, and the transcendentalists, their idealism, individualism, vague mysticism, optimism, or romanticism appears as but one of the rivulets, with some individual variation, of similar currents of European thought, articulated by a large group of European thinkers and writers. Optimism was the keynote of an enormous number of believers in endless progress and a prevalence of good over evil: Comte and Spencer; J. S. Mill and Herbart; Victor Hugo and V. Cousin; Feuerbach and Karl Marx; Hegel and Hegelians; Fichte and Lotze; Fourier and Lammenais; Schleiermacher and Jacobi; Kant and Schiller; Newman and M. de Biran; V. Solovieff; and many others. Individualism was represented by Carlyle, Stirner, Proudhon, Duehring, Bakunin, Tolstoi, Fourier, Kropotkin, E.

Reclus, J. S. Mill, H. Spencer, Buckle, de Tocqueville, Michelet, and others. Idealism was to be found in the works of Kant, Hegel, Fichte, Schelling, Renan, Green, R. Wagner, E. v. Hartmann, Goethe, Carlyle, Baader, Lotze, Zeller, V. Cousin, M. de Biran, Rosmini, Gioberty, V. Hugo, Rosenkrantz, Newman, de Maistre, de Bonald, Secretan, and others. Mysticism and intuitionism was represented by Shelley, Schleiermacher, Mizkiewicz, Wronsky, Schopenhauer, Ruskin, Dostojevsky, Gioberti, Hartmann, R. Wagner, V. Soloviev, Baader, Matthew Arnold, and others. The Concord School was just one of the brilliant varieties of this great pulsation of Euro-American culture.

*The Scarlet Letter*, *The Marble Faun*, and other symbolic and moral tales of Nathaniel Hawthorne appeared only a little earlier than the main works of Dostojevsky and Tolstoi. One cannot fail to see that in the problems treated, in the psychological analysis, in the sense of doom and psycho-social determinism, even in the style of Hawthorne and Tolstoi, their works are strikingly congenial. *The Scarlet Letter* and *Anna Karenina*, *The Marble Faun* and *Crime and Punishment* deal with the same social, moral, and psychological problem, are pervaded with the same tragedy of doom and psycho-social fatalism—in brief, have the same atmosphere and stamina in their essential traits. They are all the same “reflex” or “pulsation” of the indivisible Euro-American culture manifested in its widely divergent regions and

through persons who were hardly aware of the existence of one another. Besides Tolstoi and Dostoevsky several other European writers of the period produced works of Hawthorne's type.

As to the later great leaders of American literature, the Europeanism of Howells and Henry James, their apprenticeship and association with many a European writer such as Tolstoi, Turgenev, Balzac, Flaubert, George Eliot, Dickens, Daudet, and others are well known. Mark Twain as a humorist stands in a current of a large number of humorous, comic, burlesque, and satirical writers of Europe, a situation which did not prevent him, as it did not others, from being original and individual, as a particular writer. Mark Twain the pessimist, as has been mentioned, reflects similar currents of European thought of his time. The parallelism of the development of naturalism, which followed in Europe as well as in America, needs no proof. The literature of the twentieth century in America, with all its diversity and chaos, as well as with its specific traits, is very similar in mentality, in form, and in style to the European literature of that century. Again, all this does not mean that America merely imitated Europe, but that the indivisible Euro-American culture has pulsated similarly on both continents.

If we note some of the inner trends of the literature on both continents, we find that they have developed also along the same lines.<sup>8</sup>

<sup>8</sup> See about these tendencies in my *Social and Cultural Dynamics*, Vol. I, chap. xiii.

As we move from the Middle Ages in Europe towards more recent centuries, especially the nineteenth and twentieth, the literature becomes more and more secular and less and less religious in its topics. So does the American literature. In both, the ascetico-religious aspirations and ideals appear less and less often. Both become more and more centered around love and romance, and mainly sexual love in the last few decades. Both, in addition, begin to concentrate more and more around economic problems, so rare in the medieval literature. In both, the main types or heroes depicted become more and more the common man, farmer, peasant, laborer, businessman, stenographer, clerk, and subsocial types. Rogues, criminals, prostitutes, the sexually abnormal, failures, derelicts, hypocrites, murderers, and the like are now in the center of the literature, replacing the noble heroes of the literature of the thirteenth, fourteenth, and fifteenth centuries, and God, saints and angels of the early medieval literature. In this larger sense, both literatures have tended to become more and more "muck-raking," a museum of social, moral, mental, and other pathology. And this trend continues to go on. What American historians of literature call "muck-raking" literature was in fact a mere variety of this larger stream of "physio-dirty" interpretation of man and culture that has been growing in the whole mentality of our culture and is rampant at the present time, in science, in philosophy, in art, ethics, everywhere.

If we note also the styles of both literatures, whether it is realistic, naturalistic, romantic, symbolic, or what not, there again we find no difference. All these styles have been present on both continents, and the wave of ascendance of each on one continent was followed almost synchronously on the other. The same is true in regard to such forms as the novel, the epic, the poem, and the like. In brief, here again similarity amounts almost to identity, so far as essential traits are concerned.

If I had time, it would be possible to take other compartments of both cultures, such as ethics, religion, law, and the like and to show that in these fields the phases of development have been quite similar on both continents. But time does not permit: I can merely refer you to my *Dynamics*.

### III

What is the moral? What conclusions follow from the thesis?

1. Any contention that American and European cultures are different is wrong. There are not two different cultures; there is but one, the Euro-American, which so far as its essential traits are concerned, is of the same age, lives, changes, and pulsates similarly on both continents. Those who eulogize American culture as superior to European, as well as those who hold European culture superior, are wrong, in so far as such contentions presuppose the difference of European and American cultures. They can talk

of superiority or inferiority of some secondary characteristics, but not of the cultures themselves, inasmuch as these are the one and the same culture.

2. Since the culture of both continents has remained the same and has not crystallized into two fundamentally different cultures during almost four centuries when communication and contact between America and Europe was less intensive, it is scarcely probable, in our era of intensive communication and contact, that the Euro-American culture will definitely split into two different cultures with different destinies.

It is more likely that its destiny will be the same on both continents. If, after all, the destiny of the merged Greco-Roman culture happened to be the same in spite of the fact that at the beginning they were different cultures, it is hardly probable that the destiny of the Euro-American or Western culture will be different on two continents. If it is destined to achieve a new splendor in the future, it will do so on both continents. If it is going to disintegrate, it probably will do so also on both continents. This does not exclude secondary deviations, or even a continuation of the culture for a longer time on one—probably the American—continent. Many signs suggest a possibility that America will play in a modified form, in regard to Europe, the role of Rome in regard to Greece. In connection with this, many evidences point to a shift of the center of world history from Europe to the Pacific Ocean, with America, China, India, Japan, and Russia as the main

players of the world-history drama during the next centuries.

3. At the present time Euro-American culture and society are at a great turning point. We are living in a period of the most profound change of this culture.

It is outside the scope of this lecture to discuss the nature of the change. Suffice it to say that it is incommensurably deeper and more all-embracing than most people think. In my terminology, we live at the beginning of a decline of the sensate form of our culture that has dominated the last five centuries. The decline of this form does not mean, however, the end of our culture. It means only a replacement of this sensate form by a different and as great a form as the declining sensate phase.

4. Finally, the case of the Euro-American culture testifies that any great and integrated culture is a living unity. It unfolds itself and runs its destined course in accordance with its potential nature. It may use, as its bearers, different racial, geographic, national, economic, or occupational groups. These groups may be separated by long distances from one another. And yet, in spite of these differences, in all these groups the culture unfolds itself in its fundamental properties along similar lines and undergoes the same essential change in the course of its existence. Racial, national, geographic, and other differences of the groups that are the bearers of the culture rarely change the essential nature and destiny of the



culture. They call forth and lead to many variations in the *secondary* characteristics of the culture. These secondary traits are articulated differently by the different groups; usually they acquire different local colors. Likewise, the essential change in the culture may not occur synchronously in all the different groups that are its bearers: in some it may take place earlier than in others. Even the purity and brilliance of the fundamental traits of the culture may be manifested more clearly in one group than in others. But, so far as the essential nature and main phases of the unfolding of the culture are concerned, they run the same course among all the different groups which bear it. The Euro-American case is only one among many that show this organic logic of the life of culture.

## PLAN AND PERFORMANCE

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UNTIL RECENTLY many factors have contributed toward making this a country of comparatively unregulated growth. Large acreage, new frontiers, relatively few people, hatred of regimentation, the spirit of freedom and private enterprise, opposition to the expansion of government, apparently bottomless natural resources, and a dozen other conditions and characteristics have made us what we are. As the country filled up, the geographical frontiers disappeared, natural resources began to be exhausted, less room was available at the top for private enterprise, and more people realized that they were in compartments, grooves, and groups from which they could not easily rise. Unfavorable conditions developed which private enterprise did not seem to be able to correct. Then men began to look more toward government for assistance and to waive, at least temporarily, their inherited dislike and fear of official regulation. Naturally there was no lack of political thinkers and leaders to meet this new demand and to exploit it to the full.

One of the watchwords and slogans of the new era

is planning—planning applied to just about everything in human life. The subject is too large for one paper, and I am going to confine myself to planning as it affects physical growth of cities and states and the anticipation of growth and change.

Let me at the offset give you briefly my personal philosophy because you are entitled to know it in measuring the validity of my comments and conclusions. It is ridiculous to say that any one can approach such a subject entirely dispassionately and with complete detachment, purely in a spirit of scientific inquiry. We are dealing here with human nature and not with the exact sciences. The point of view of the commentator is conditioned by his background, environment, experience, and responsibilities.

In my own case, to clear the decks of possible misapprehensions, I make the following apologia: I have had some academic training and experience in research, but have been for years primarily engaged in administrative work in government, sometimes in an advisory capacity, but mostly in positions with heavy responsibilities. I like to believe that I am a forward-looking conservative, that is, a person who recognizes the law of change, wants to keep abreast of the times and to anticipate the future to the extent that it can be visualized, but who wants to hold on to what is good and what has proven its worth before jumping to something new just because it is new. Such a person does not believe in revolutions in

human nature nor in cure-alls, nor in the possibility of accomplishing anything really worth while in human progress without immense and sustained effort over a considerable period of time.

As to government, I have an entirely practical approach to the problem. I do not fear expansion just because it is expansion. I fear it because I foresee that we may expand government beyond our capacity to govern. I believe that government in this country at this time should have decided limits and that these limits are determined by the ability of public administration to operate in a fashion more satisfactory to the majority of people than private enterprise. I am not horrified when I hear that government has branched out into something new. I want to look over the new enterprise to see whether it is necessary, to find out where private business fell down or was otherwise inadequate, discover whether regulation rather than control would solve the problem, see what kind of people the government can find to substitute for those who functioned privately before or to fill the gap if there is one. This is the pragmatic approach to the problem. I see no reason to get hysterical because government expands or tries something new, but by the same token I do not propose to be bulldozed by partisans, enthusiasts, crackpots, fanatics, or other horned cattle, into accepting as new gospel things tried hundreds of times in the past under slightly different guises and found lacking. I have a strong hunch

that when the smoke of present battle clears away the forward-looking conservatives will not be as lonesome as in the recent past they may seem to have been. Who knows, they may even be in the majority!

What is planning in government? It is merely a new name, a slogan for a very old thing. A budget is a plan, a cabinet, a council, a legislature, a board of estimate, a committee on finance or ways and means, or any other legislative committee, a constitutional convention—all these are planning bodies, straining their eyes into the future, seeing through a glass darkly, some with unclouded retinas, some with a jaundice of ignorance or bias, some applying a microscope when they ought to use a telescope, some looking for mirages and rainbows and imagining that they see them close at hand, some forming extraordinary impressionistic pictures which mean little or nothing to anyone else.

Recently New York City adopted a new Charter. The commission which prepared it was a distinguished one. If it lacked anything it was practical experience in actual government. This commission chose to regard as the heart of the Charter the establishment of a City Planning Commission with great power. The commission was to consist of several members, all appointed by the Mayor, for overlapping terms exceeding his own. It was given power to pass on practically all physical plans, to make the capital outlay budget, and to prepare the great master plan of the city. It was even given the authority to over-

ride the governing body of the city in certain cases. I refrain from extending comment on the curious theory that you can make water rise above its own level by some kind of legalistic hocus-pocus or that a community can be lifted up by its own bootstraps by what the magicians call levitation. In the last analysis no public program can be sustained except by the support of elected officials or by public opinion or by both. This is an axiom known to every politician and administrator but apparently denied to those who hash up constitutions and charters in bar associations.

In any event, when the new Charter went into effect the Mayor asked me to be Chairman of the Planning Commission and I talked to my friends on the Charter Commission about it. The point of the story is that no two of them agreed on the functions of the Planning Commission, although all of them were insistent that it was a vitally important body. The conversation became so confusing that it occurred to me that we might get somewhere by means of a practical analogy, simile, or metaphor, and I asked what function the Planning Commission played in the city government on the theory that the city government was an automobile. One of my distinguished charter friends said that the Planning Commission was the steering wheel; another said it was the brakes. They all agreed that it was not the engine or the carburetor. After thinking it all over I decided that moving from an administrative position into the Planning Commission would be trading

the substance for the shadow. The problems of this body lie not in the character of its membership, but in the inevitable complications arising from its relations with other branches of the government including the elected officers who have, or believe they have, a direct mandate from the people, and other administrative agencies in a most intricate municipal organization, agencies which are jealous of their prerogatives and insist that they shall not be lost sight of.

State as distinguished from municipal planning bodies have not made much progress and, in my opinion, will not make very much. The state is too large a unit to be controlled by a planning board. Such boards usually run afoul, if not of the governor, at least of the members of his cabinet, the budget director, fiscal officers, legislative bodies, and other boards and agencies who are doing definite pieces of planning work even though they are not labeled as such. These state planning boards have a strong tendency to degenerate into a combination of library, Ivory Tower debating society, planetarium, and water color club. So long as appropriations hold out, any research staff will turn out reports, make pretty pictures, discuss what other people are actually doing, claim credit for accomplishments toward which they have contributed little, and generally go through the governmental Swedish exercises and St. Vitus dances necessary to show that the bureau is alive and kicking. The greatest activity, of course, is apparent at just about the time the annual budget is being made.

It will usually be found that a really ambitious and competent young man in such an agency wants to get into genuine administrative work and that he will get himself a transfer or quit before he goes stale. This is even more true of privately financed planning regional committees. They draw attention to planning, they publicize and popularize it, they give its terms currency, but in the long run they accomplish little else.

How far ahead can we look in government work where specific programs of construction and government services involving the expenditure of large sums of money are involved? It is hard to say. The principles of democratic government have up to recently been supposed to be immutable. Experience here and abroad has challenged this theory in the most startling way. On another theory our own Constitution, while based upon principles, is so flexible that it will meet the needs of any age. It may be so, but you can stretch almost anything until it breaks. It may be asserted, however, without exaggeration or chauvinism, that American democracy has exhibited more toughness and staying power than any other. Assuming, therefore, that we are going to continue to live under a stable and understandable government with a constitution whose limits are pretty well defined by the courts, and with a pretty definite knowledge of what can and cannot be done by law, where are we as to planning?

Mind you, I do not say that this is the case because



there is the most extraordinary confusion as to both constitution and laws. Up to very recently we were told with the utmost solemnity and finality that the federal government could not tax the salaries of local officials, nor could local governments reciprocally tax federal salaries. The Constitution was an absolute bar. Only a few days ago Congress decided to pass a law authorizing such taxation. State legislators took steps anticipating its adoption, and the United States Supreme Court decided that the Constitution was no barrier. I approve of such taxation, but am in a complete fog as to where this constitutional decision will lead us.

Similarly, we are told that a constitutional amendment is still needed to ban child labor throughout the country by national action. Six months from now the amendment which has been fought over for years may be declared entirely unnecessary. To come down to something closer to physical planning, we accept today with little question the most dogmatic assertions as to the limits of the police power in sustaining planning and zoning laws. Personally I am convinced that many of the limitations imposed upon us by elderly gentlemen who fought and bled for the original statutes no longer exist in fact, that much more drastic and comprehensive regulations may be constitutionally adopted governing building, city maps, billboards, and the materials and types of construction of buildings as well as setbacks, heights, and their outward appearance. How can we pos-

sibly plan for the future of cities and suburbs and, in many cases, of the open country, unless we know much better than we do now what are the legal limits of zoning and planning?

Some years ago I raised the question whether in the subdivision of property, a municipality can insist upon the dedication of space for playgrounds as well as the layout of adequate streets. I was told that this would be clearly unconstitutional. I do not believe it. It makes no sense to me, and is one of those legalistic fetishes imposed by technical authorities who do not want to take a chance on being wrong in the courts and who hate to take back any of the pontifical rules which they themselves have laid down before.

Suppose we turn now to the field of invention. What do we find? Who can foretell the future of the automobile or the airplane? It has become a popular sport of smart-alecks to poke fun at all those who laid out our cities years ago. The gridiron plan of Manhattan Island, adopted by a City Planning Commission back in 1811 had been peculiarly the object of ridicule. But were these people actually so dumb and short-sighted? This commission was, in fact, one of considerable light and leading. It functioned before the days of the railroad, the steamboat, and the internal combustion engine. Leonardo da Vinci anticipated the day of the flying machine with his sketches, and he had predecessors as far back as Greek mythology, but all this was in the realm of

the imagination, and common sense citizens living under a limited budget in a small city could not predicate their plans on any such imaginings.

I am not precisely an old man and yet I can very well remember New York City when it had street cars with straw in them, drawn by horses, when the elevated rapid transit trains were pulled by small steam engines, and when no one dreamed of a city of seven million inhabitants at the mercy of hundreds of thousands of automobiles. I saw a few days ago a report by the head of the General Motors Corporation in which he prophesied that in a short time people would ride on a belt of talking chairs—in 1960. It may be so, but I would not want to take a chance on it in laying out the city. How do we know how many people will travel by air in 1960 and how much local travel there will be as distinguished from long distance journeys? What airports shall we need and how will they influence, for example, road building?

The planner who professes to be able to see clearly a hundred or more years ahead is an egotist or a visionary who cannot safely be entrusted with immediate decisions in public office. On the other hand, the public official who looks ahead only ten years is a fool. Somewhere between these two extremes must be found the answer to the limits of planning, at least physical planning. My own feeling is that by and large the official who can confidently look ahead fifty years in these days is a pretty smart fellow, and

even he takes a chance of being proven ridiculous or tragically wrong in some of his prophecies.

What, for instance, do we know about the life of public improvements? One of our academic planners in New York State, a prominent member of the legislature, is so torn between his pledges of economy and his enthusiasm for long-range planning that he has just prepared a table of the life of public improvements, which is the most grotesque thing I have ever seen. For example, he declares that a bridge of steel, stone, and concrete has a life of only twenty years if it costs less than \$5,000,000, but of forty years if it costs more than \$5,000,000. Obviously the cost of the bridge has little to do with its life. How long will one of our great new suspension bridges last? Indefinitely, is the answer. We finance such structures, if they are toll projects, by a forty-year bond issue, in the face of the fact that one hundred years are a watch in the night in the life of such a structure. It will not fail in any given time, but of course it may become obsolete. Even this is hard to believe, but it is possible.

On the other hand, what is the life of a concrete road? Hundreds of millions of dollars are spent on concrete roads throughout the nation, but almost nothing on accurate research and investigation. The old Roman viaducts and aqueducts exist today. The pyramids are in pretty healthy condition. Climate no doubt enters into these things, but in many cases it has little effect. Sentiment sometimes has an enor-

mous effect, and structures and facilities which should be scrapped or rebuilt are retained long after their life should be ended because of decay or obsolescence, solely because popular sentiment is in favor of doctoring them and keeping them going.

In New York we have recently had a great battle over a new bridge connecting Manhattan and Brooklyn. The battle involved not only questions of navigation, traffic, financing, approaches, construction, and related subjects, but also aesthetics. The opponents professed to see the destruction of Battery Park, which, as a matter of fact, will be greatly improved. They became most absurd when they claimed that the bridge should not be built because from some angles it might hide part of the present view of the tall buildings in the financial district. Attention was carefully diverted from the fact that these tall buildings constitute something more than an interesting break in the skyline seen from approaching ships. As a matter of fact, they symbolize thoroughly bad planning, crazy land values which cannot in the long run be sustained, overcrowding, deprivation of light and air, concentration where there should be decentralization, inhuman transportation and traffic arrangements, and a dozen other monstrosities. To many people throughout the United States who are becoming more and more vocal, these buildings represent an oppressive and inhuman concentration of wealth and financial control. As a New Yorker, the best advice I can give some of my fellow citizens is not to attract

too much attention to this group of buildings and to refrain from making it appear to the country as a whole that they are the hallmark of New York.

What shall be said of the life of a skyscraper? Like the bridge, it will last indefinitely, but many of them throughout the country are half empty. The depression and bad business have no doubt contributed, but who shall say that they will ever be filled, or that more of them will be built in the near future? People point to Radio City as a refutation, but it proves my point. Only one family in this country could have built Radio City with private capital, and they have done so by drawing the tenants out of other buildings and emptying them. It is possible by huge expenditures of money, lively imagination, clever administration, and great persistence here and there to set up another colony of skyscrapers, but it will not happen often from now on nor for a long time to come, and it can only happen even now on the basis of ruining the tall buildings of yesterday.

In this discussion I have not even touched on the subject of war—the destroyer of all things. What, from the point of view of the planner, will be the effect of a general European war in which this country is not a participant? What would be the effect of a world war in which we did not fight but in which we supplied the democracies? How long could we stay on the sidelines in a general conflagration? In time of war the plowshares are beaten back into swords; the materials, the manufactures, the trans-

portation, the sales, the usages, and the turnover upon which we depended in our national, state, and local economic programs, are all changed beyond recognition. They become part of the military machine. Shall we scrap our civil plans on this account? Shall we try to co-ordinate them with future military uses? Can they be co-ordinated? Who will take the responsibility for the decision and will the public back it up? What was it the poet said about the best laid plans of mice and men? His concerns were primarily domestic, but they apply abroad as well as at home.

When all is said and done, planning is common sense applied to limited objectives. Planners are born rather than made. I devoutly hope that no university will start a school for planning with an elaborate marble building, a stringed endowment, and a panel of professors who have gracefully slipped over into the new faculty from some old and accepted branch of learning in order to get a promotion. The qualities which make a good planner were well established in the days of the leading executives of the Old Testament. The Greek philosophers recognized, isolated, and described them. The Romans built an empire on them. No greater planning body ever existed than the convention which wrote our own Federal Constitution. In addition to common sense, a knowledge of history, good vision, first-hand experience in government affairs, tenacity, courage, and an ability to write and speak trenchant English are requisites. In the field of physical planning of municipalities, a

most important requisite is local knowledge. The planner must have his roots down deep in the community; he must realize that the results of experience elsewhere can be applied only sparingly at home and that one man's meat is another's poison. The fact that a planning scheme works in the North does not prove that it will work in the South or in the Middle West. He must know that lasting results cannot be obtained simply by changing the caption on a blueprint or adapting the program of one community to the needs of another by altering dimensions and editing the text. If there is to be home rule anywhere, it must be in the field of planning.

The terminology, jargon, lingo, or whatever you want to call it, being developed in connection with planning as a new science, is not only totally unnecessary but is bound to become ludicrous and offensive to the average citizen. We get pretty sick of hearing about "satellite cities," "freeways," "environs," "regions," etc. We become even more weary of elaborate statistical studies which have no foundation in common sense. I remember one pamphlet full of mathematical formulas which sought to estimate the future population of a community by breeding blue flies in a bottle on some fantastic theory that the conditions governing the multiplication of the flies were similar to those controlling the multiplication of human beings. I have seen studies of playground usage showing just how many square feet are needed for each child, and ending in conclusions so utterly un-



related to neighborhood needs and to the actual behavior of children trying to have a good time that they are valueless. I have seen traffic estimates which the average truckman could refute with great ease. I have listened to low-cost and low-rental housing arguments which would be a subject of ribald amusement to any intelligent bricklayer. I have seen so-called planning experts move human beings around like pawns on a chessboard on the theory that entire communities must be rebuilt to conform to new theories which completely ignore the most fundamental characteristics of the American people. Our average citizen is intractable, unpredictable, and illogical in such matters. Curiously enough, he does not want to be shunted about by experts.

It is no doubt a great disappointment, especially to young and enthusiastic people, to be told that something which seems new and shiny, bright and very promising, is really only an old instrument known to the cave dwellers and sharpened to meet new conditions. It is disheartening to discover a new country only to find the remains of the lunch and the cigarette wrapper left by a previous explorer. What must be the chagrin of the genius who finds that his latest invention was patented long ago? Who will have the hardihood to dispute the wisdom of the sage who said there was nothing new under the sun?

I have not come here to disillusion you. I bring you no message of defeat and discouragement. On the contrary, I can say with pride that I speak for a

group which has done much to translate plan into performance, which has enjoyed immensely the experience of testing theories in action by fighting for what they conceive to be the future public good, by persuading the public to accept what we think is sound and what in a civilized country is their due. We do not believe we have invented a new science. We are merely applying old established principles to modern problems. We are proud to be public servants, but it does not follow that we believe that our role is any more important than that of people in private callings, nor that we feel we must reach out to control everything, nor that we are convinced that we are anointed to lead the people where we think they ought to go whether they like it or not. We aim primarily to serve our own and the next generation, but we devoutly hope that our work will last much longer. Like the great cardinal, we do not ask to see the distant scene; one step is enough for us. We do not play for the verdict of history. The most we ask is the support of our own people in our own day, for without this we shall get nowhere.

## AMERICAN JURISTIC THINKING IN THE TWENTIETH CENTURY

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TRULY THERE is nothing new under the sun. The discussion which rages chiefly in jurisprudence in the United States today raged among Greek philosophers of the fifth century B.C. They argued, as we are doing today, whether men's relations with each other were adjusted, their disputes were determined, and their claims and desires were harmonized in action by arbitrary precepts, arbitrarily applied by those who wielded political power in the time and place, or rather by precepts of general application, grounded on reason and justice.

Democritus put law as something made, in contrast with what exists by nature. It was a stock doctrine of the Sophists that the just was such only by convention and enactment. Antisthenes, the founder of the Cynics (444-365 B.C.), held that all laws were valid only by enactment. There was no ideal behind a legal precept which it sought to declare. What men had taken to be behind it was a result of the

existence of the precept by custom or enactment. Socrates, on the other hand, said that law was a discovery of the reality in relations—that is, of the ideally significant. It was found not made. In one form or another jurists have carried on this debate ever since. In the sixteenth century Donellus (1589) after expressing his agreement with those who derive *ius* from *iussum*, right and law from what is commanded, adds that the significant idea is command, as shown in the very definition. But Suarez (1619) tells us instead that only a right and honorable rule can be called a law and that *ius* is derived from *iustitia*, law from justice. In the next generation, Hobbes (1651) said that what was right and what was wrong was a matter determined by rules set by the ruler of a civil society to his subjects. Grotius, on the other hand, was saying that reason showed us what the ideal man would do and would not do, what was right and what was wrong, and a law was a rule of civil conduct morally, and so legally, binding to that which is right. Likewise in the eighteenth century, to Rousseau (1762) law is “the expression of the general will,” while to Montesquieu (1748) “law in general is human reason.” Nor are the two lines less distinct in the nineteenth century. In the one line we get such formulas as these: “the will of the state concerning the civic conduct of those under its authority” (Woodrow Wilson, 1898); “the aggregate of rules established by a superior will in order to direct human actions” (Demante, 1849); “the

aggregate of rules established by political superiors" (Austin, 1832). In the other line: "the expression of the idea of right involved in the relation of two or more human beings" (Miller, 1884); "the aggregate of received principles of justice" (G. H. Smith, 1887); "the sum of the rules of justice administered in a state and by its authority" (Pollock, 1896).

In this country, a generation ago Brooks Adams, under the influence of Marx's economic interpretation, revived the Sophists' way of thinking in a new form for the modern world, though one familiar to the Greeks. He told us that justice was the will of the socially dominant class, dictated by its self-interest, imposed on those upon whom it was able to impose its authority. Law was a body of precepts formulating this will. Today one of the leaders of American realists tells us that law is whatever is done officially; it is what judges and magistrates and administrative officials of every sort do about men's disputes, and is law because they do it. Nor is this sort of thinking about law confined to our country. Recently Lundstedt did me the honor of comparing me with Kelsen and Duguit as a realist. But, he says, we do not any of us go far enough. He tells us that it is not that there is a law of property because men seek to be secure in what they have discovered or made or amassed. They claim to be secure in these acquisitions because there is a law of property. It is not that there is law because men have or make claims and seek to secure them. They make claims and desire

them secured because the law teaches them to do so. The idea of a right is wholly rejected. There are only "situations in which, on account of certain rules maintained by force, certain acts give rise to certain effects."

As one looks back over some twenty-three hundred years of what is now called realism, from the Sophists to Lundstedt, the advocates of this hard-boiled jurisprudence are alike not only in the hard-headed position they assume but also in a confident dogmatism; an assurance that they alone are in touch with reality while all the rest of the world is groping in error and illusion and superstition. But as he looks back over the corresponding twenty-three hundred years of idealism, from Socrates, let us say, to Del Vecchio, the advocates of a jurisprudence based on reason and ideals of justice have been quite as assured that they were thinking on a higher plane and in accord with the eternal verities. Thus the present state of the science of law, with respect to the fundamental question what it is about, is substantially what it was in the beginning.

Indeed, already in Greek philosophy a master thinker sought to unify the two lines of doctrine and told us that some things were right and just by nature and other things by convention and enactment. The changes have been rung on this ever since, and only yesterday a writer on sociology of law put it in its latest form, telling us that law is ethical-imperative co-ordination.

But today some of the jurists in the line of the Sophists raise a question whether there is a science of law at all. They say there is a subjective element in the so-called social sciences which is incompatible with science truly understood. They assert that what men wish, their temperament, their prejudices, their superstitions, enter into the social sciences to such an extent as to make them in their aims and methods and content wholly unscientific. To this it is answered by another type of the hard heads (if we adopt William James's classification of thinkers into hard heads and soft heads) that there is a distinction between natural sciences and normative sciences; that the natural sciences study what is, and so all their theories are tested by their ability to explain all the phenomena. If new phenomena which they do not explain are discovered, the theories go by the board. The normative sciences, on the other hand, have to do with what ought to be. If the actual phenomena do not conform to the norms those sciences set up, it may only show that the phenomena must alter, not that the norms are to be abandoned. But I conceive that in jurisprudence we must be studying both what does take place and what ought to take place, and that realist and idealist are looking at different aspects of a subject which is not complete except as one takes account of both. I am not content with Kelsen's proposition that the natural sciences depend upon observation while the normative sciences depend on postulates. Experience may be the basis of postulates.

But if not, the postulates have to be judged by experience of the precepts derived from them when put in action. In law we have to do with experience developed by reason and reason tested by experience.

Nor am I troubled about the propriety of using the term *science* in this connection. To Descartes and to Newton, physics was natural philosophy. To the fore part of the last century psychology was mental philosophy, and ethics moral philosophy. Austin gave his somewhat hard-boiled analytical jurisprudence, in which at any rate, to use Holmes's phrase, he washed legal conceptions in cynical acid so as to take out all moral element, the alternative title of philosophy of law. Then came the reign of history. For a season the biological sciences were natural history and historical jurisprudence was taken to be the whole of what we now should call the science of law. Today we are in the reign of science, in the sense of the physical sciences, and what were once philosophies or histories are now sciences, without having changed their nature in any material respect. After all, what's in a name? Without prejudice to what jurisprudence ought to be, let me think of a science as an organized body of knowledge about something significant and so use science of law as an alternative title. I may do this with quite as much right as Austin had in giving to his analytical jurisprudence, which laboriously excluded the philosophical method, the alternative title of philosophy of law.

Looked at in a broad way, the three lines of



thought about social control, and so about the legal order, as today the paramount organization of social control, along which men are still writing and arguing and debating, have come down to us from the Greek philosophers. They are an idealist line, a realist line, and a line of unification of the other two. The idealist line may be so called because it postulates ideas of right and justice or ideals of the social order and so of the legal order, or goals philosophically justifiable, even if discovered by experience, behind and expressed by or sought by means of the body of authoritative precepts of conduct and the judicial and administrative processes in which those precepts are applied. The realist line, to give it the name which its followers are applying to it today, may be so called because it conceives of the items of the body of authoritative precepts as being, so far as a science of law is concerned with them, sufficiently accounted for in that they are established or recognized or enforced by the agencies of politically organized society, and of the items of the judicial and administrative processes in action as sufficiently accounted for in that politically organized society in fact operates through them in that way. Thus it finds reality (in the sense of significance) in the phenomena of the legal order of themselves rather than in something they express or which men seek to realize through them.

It is not so easy to give a name to the third line. A name is a name and not a description, and if a name is in general use, I should be the last to give it up

for one more nearly descriptive unless the received name results in serious confusions or misunderstandings. But there is no received name or name in common use for the line of juristic thought which I have in mind and one must either coin a name out of his Greek dictionary or essay a brief descriptive phrase which will be neither name nor description. We may, then, call it the line of unification because it seeks to take account of both the ethical or rational and the imperative or enforcing element in the body of authoritative precepts and in the judicial and administrative processes and to bring them together in some theory or conception of the legal order as a whole. In a sense the other lines of thought are directed to the legal order as a whole. But to one it is all a matter of an ethical ideal from which the phenomena of the legal order are derived or to which they are referred, while to the other a postulated derivation from a politically organized society is in like manner all sufficient. In the third line the whole is not thought of in terms of either but in terms of both.

To speak first of the idealist line, which one might call, remembering the definition attributed to Socrates in the pseudo-Platonic *Minos*, the line of Socrates, we are there thinking in terms of the element in law which Aristotle rested on "nature," which Thomas Aquinas rested on theology, which the seventeenth-century jurists derived from reason and the eighteenth-century jurists deduced from the nature of man. In the nineteenth century the philosophical

jurists grounded it in metaphysics, while Savigny and the historical school gave it a basis in history. But their interpretation of history was idealistic. Legal history was a record of the unfolding of an idea of individual freedom in human experience. Thus ultimately we came to an idea of freedom from which everything was derived and by which everything was to be judged.

In the last half of the nineteenth century the metaphysical type of philosophical jurisprudence gradually lost its hold. Its abstract mechanical method did much to bring philosophy of law into disrepute. It was convicted of helping to intrench more than one doctrine which was having to give way before the pressure of newly recognized interests. Likewise the historical school, which had compelled analytical jurists to modify their creed, had pushed philosophical jurisprudence to the wall, and held the field almost uncontested in the last quarter of the nineteenth century, lost ground at the beginning of the present century and has substantially disappeared. A new type of philosophical jurisprudence, developed by a social philosophical school of a number of types, took the lead a generation ago and was dominant in the first two decades of the twentieth century. But as philosophical jurisprudence grew strong again, after a long interval of dormancy, it began to divide along the old line of cleavage, and a group of the social philosophical school began to move from the line of Socrates toward, if not to, the line of the

Sophists. Rudolf Stammler, the head of the Neo-Kantian type of the social-philosophical school, has undoubtedly been the strongest single influence in philosophical jurisprudence in the present century. We owe him much that is of the first moment in the juristic thought of today. But in his later writings, after the World War, he turned to an extreme logicism, taking logic for the end of a science instead of as a means of exact investigation. He relied on logic as the jurists of the seventeenth and eighteenth centuries relied on reason. The starting points were to be found through logic and reality was in logical relations. Thus there came to be a steadily widening gap between the Neo-Kantian right which hewed to the line of Socrates and the Neo-Kantian left which through relativism and logicism turned to the line of the Sophists. Hans Kelsen, whose Neo-Kantian normative logicism is the subject of discussion today in all countries and in all tongues, is one of the outstanding leaders of juristic thought in Continental Europe. To him, laws are threats addressed by those who wield the authority of politically organized society to those subject to its authority. There has been a notable revival of analytical jurisprudence since the World War. Questions of what laws ought to be are deemed foreign to a pure science of law. There is to be only a science of what is.

But except as some refugee teachers from Continental Europe have brought in Kelsen's teaching, it has had little or no vogue in contemporary America.

At the moment, there are two movements on the juristic right, one which might be called neo-idealism, the other which is called neo-scholasticism. For a time the former was dominated by the Neo-Kantian relativist logicism. Recently, however, there has been a tendency to break away from this and to deal with the problem of values by a theory of civilization values in which individual personality values and community values are transcended in the conception of civilization, and the values of civilized life. This movement has hardly been felt as yet in the United States. Nor has neo-scholasticism attracted the notice it deserves. In the account of recent jurists in the English book, *Modern Theories of Law*, the author of the article on Gény is at a loss to know why he is called (as he calls himself) a neo-scholastic and evidently had not read Gény's *Science et technique en droit privé positif*, although the first of the four volumes had appeared twenty and the last nine years before. But the rise of law teaching in the Catholic universities in America will no doubt lead to a study and teaching of juristic neo-scholasticism on this side of the water.

Neo-scholasticism is a phase of a revival of natural law throughout the world which has been going on in the present century. This revival began in France and has been most active there. At the outset it got a certain impetus from Stammler. But it soon took three lines: a Neo-Kantian (e.g., Demogue), a sociological (Duguit), and a neo-scholastic (Gény).

Gény's great book from the neo-scholastic standpoint is far from easy reading and has not yet come into its own. Hauriou, in his teaching of constitutional and administrative law, developed an institutional theory of politically organized society, based on neo-scholasticism, which came into vogue a little more than a decade ago, has been carried further by a new generation of French legal scholars, and has attracted notice in England. Skeptical France, which for half a century had been predominantly positivist in her juristic thinking, seems definitely to have turned from Comte to St. Thomas Aquinas.

It is noteworthy, that the two French exponents of a revived natural law who have had the most influence, namely, Duguit and Hauriou, were teachers of public law. The exigencies of teaching public law in France seem to have had much to do with the movement. For public law in France is not characteristically positive law enforced against governmental agencies in the ordinary courts, as in the English-speaking world. In French theory sovereignty means legal unaccountability. The separation of powers means that each department of government is the judge of its own competency and no one is subject to review of its acts by another. There is much the same problem as was presented in the Roman polity by collegiate magistracies. It is not unlike the problem we sometimes find in our judicial organization where, for example, there is a court of six co-ordinate judges each with the whole powers of the full court, and

with no administrative superior. In the Roman polity the individual magistrate was held to get along with his colleagues by tradition and *boni mores*. In the case of our trial courts, the individual judge is restrained by tradition, by professional ideals of what is done and what is not done, and by the general opinion of the bar. One might easily refer these to natural law. Under the theory that those who in their spheres wield the sovereignty of the French people are legally unaccountable, recourse must be had to natural law, making the holders of the ultimate power in any department of government unaccountable to the positive law but subject to natural law. Where there is no positive constitutional law, in our American sense, it becomes necessary to turn to natural law to fill the gap.

What is natural law? As one reads of it in the law books, as distinguished from purely philosophical treatises, it seems to have four meanings. In one sense it is a body of universal ideal principles serving as starting points for lawmaking, legal reasoning, and a critique of positive law. These principles are taken to be eternal, unalterable realities or in another way of thinking are postulated as such. Second, it may mean a body of ideal precepts deduced from those principles. Third, it often means a universal element in the positive law of a time and place. The Roman jurists who identified the *ius gentium* and the *ius naturale* had some such idea, and it is to be met with not infrequently in modern books. Fourth, it may

be used to mean a generalizing and systematizing, a putting universally, of the received ideal element in a body of positive law. Such, for example, has been a common meaning of the term in this part of the world. As the subject is usually developed in application, there seems something very like a natural natural law and a positive natural law, the latter drawing its validity from an assumed coincidence with the former. Certainly the French writers on constitutional law, such as Duguit and Hauriou and the exponents of the institutional theory, notably Renard, resort to a body of authoritatively received ideals which may well be styled positive natural law.

In America, as everywhere else, historical jurisprudence has become dormant. Ames and Bigelow have no successors in working upon the persistent problems of the science of law upon a historical basis and with a historical method. Legal history goes forward. Historical jurisprudence has no following. But this cannot be more than a passing phenomenon. A generation ago philosophical jurisprudence had disappeared from the juristic map. Now, for the time being, it is almost in occupation of the whole domain. For the immediate future our greatest need is to revive historical jurisprudence as, at the beginning of the present century, we revived philosophical jurisprudence. We must remake historical method as we have remade philosophical method.

Turning to the second line, the line of the Sophists, I ought to say that I use the term in no derogatory



sense. The Sophists have come into their own in recent times. It is recognized that in an era in which orthodox beliefs were dissolving, the skepticism of the Sophists was a phase of that swinging to and from overconfidence in beliefs and overdoubt of them which seems a characteristic of thought. Much of what is told of them sounds as if it were said today. Anaximenes, a follower of Antisthenes, defined a law as any analytical jurist might define it. Callicles, as reported by Plato, sounds like Nietzsche. Hobbes might have said what Plato attributes to Thrasymachus and Polus. The Marxian or the skeptical realist of today might either have said what is attributed to Thrasymachus, that "the just is nothing else than the interest of the stronger," meaning by the stronger the *de facto* supreme authority in the city state, and that as the shepherd exploits the sheep, so the ruler exploits the ruled for the ruler's own advantage. Such sayings come naturally, in an era of social and economic and political transition, by way of reaction from the dogmatism which juristic thought acquires in eras of social and economic and political stability. Moreover, they contain an element of truth which no theory of the legal order can afford to ignore.

At the right of the jurists in this line stand the English analytical jurists. They are in the straight line of descent from Hobbes in refusing to search for anything behind the immediate practical source of the sanction which, in their eyes, is the significant

characteristic of a law. They postulate a politically organized society as the basis of a legal order and the determinate authority from which laws must proceed. Law is only an aggregate of laws. A law is something established, or in a later type of thinking either established or recognized by the state. It may be, as the French analytical jurists held under the influence of the civil code in the fore part of the last century, a body of rules laid down in the form of legislation. It may be, as a later generation of English and American analytical jurists put it, a body of precepts getting the guinea stamp of the state through application and enforcement by the courts. It may be, as Professor Gray finally put it, a body of precepts laid down by the courts, treating every supposed form of law except judicial decisions as merely the raw material of law. It may be, as the Neo-Kantian relativist analytical jurisprudence teaches, a body of threats that given certain states of fact the officials who exercise the power of a politically organized society will apply certain specified forms of force to the situation. At any rate, the doctrine is, the guinea stamp of the state is what we must look for. Nothing else matters; we must confine ourselves to study of these actually existing, real, not imagined, materials of decision.

Such, according to Austin, is the province of jurisprudence. According to Sheldon Amos, such a body of precepts constitutes a "pure fact of law." According to Roguin and Kelsen, study of these precepts

exclusively gives us a pure science of law. But under the conditions of today we must add to Salmond's "rules recognized and acted on in courts of justice" and Gray's "what the courts lay down" whatever it is analogous to rules that is acted on in administrative tribunals and what administrative commissions and bureaus and officials lay down in the form of rules or formulate as grounds of determination. Moreover, as many of them are not inclined to formulate grounds of determination and profess to treat each case as unique, it is not a far cry to the proposition, extending Gray's definition still further, that law is whatever is done officially about men's disputes. The analytical jurist, however, stops short of this.

To the analytical jurist, while all that philosophical jurists had been talking about was so much speculation, a law having, as I put it a moment ago, the guinea stamp of the state was bedrock reality. It has remained for a new type of the hard-boiled school of jurists to remove "a law" also to the limbo of illusion. While the analytical theory was developing, a new idea came in with Marx's economic interpretation of history. Philosophically it was derived from the Hegelian interpretation of history as the record of the unfolding or realizing of an idea. Marx substituted for an ethical or a political idea an idea of satisfying material human wants. This economic interpretation gave us at the beginning of the present century an economic interpretation of legal history. A generation ago Brooks Adams combined this interpretation

with Austin's analytical jurisprudence. According to him, all law is made and is made consciously, as Austin conceived it was. But it is made by men who make legal precepts to suit the ends of the dominant social class. Those ends are determined by economic causes. Thus all law is determined by economics.

Economic determinism is now as definitely fashionable as historical determinism was fifty years ago. Laws and theories of justice and items of the judicial and administrative processes are but means by which a socially or economically dominant class imposes its self-interest upon a class which it is exploiting. An economically dominant class has taken the place of the ruler postulated by Thrasymachus.

Presently Marx was supplemented by Freud. Economic determinism was reinforced by psychological determinism. We are told that humanity is so constituted that it is impossible in the nature of things for a judge to decide impartially or objectively. He can only do what his temperament and prejudices and predispositions determined by his bringing up and social surroundings dictate. Then he rationalizes the result, independently arrived at, by a discussion on the basis of the law books. Finally, Marx and Freud are supplemented by Einstein, and we get the fashionable relativist skeptical realism which can see nothing but disconnected items of judicial and administrative behavior, denies there are such things as rights, and conceives that everything beyond what officials actually do in each case is illusion. The sig-

nificant point is, perhaps, that as the line of Socrates is being carried to the extreme in the revival of scholastic natural law, the line of the Sophists has gone to the extreme of the opposite pole in skeptical realism.

Recent research in industrial physiology is casting doubt on much that a type of enthusiastic psychology has been dogmatically asserting as to human behavior. It seems to show, what sociologists had believed, that ages of increasing control of behavior have left their mark upon humanity. It confirms the faith that traditional behavior habits have achieved great things, not the least in social control through law and control of judicial action by a mode of looking at questions as applications of principles, handed down by generations of lawyers to those who have studied under them. Perhaps Polybius, who had good sense even if no knowledge of behaviorist psychology, was not so wrong as to the explanation of the rise of the Roman people to leadership in the ancient world. Does not the skeptical realist argument go to the root of the postulate on which the realist proceeds? Does it not show the need of internally ordered behavior, merely helped out by externally ordered behavior, if civilization is to achieve its ends? Our theory of social control, when it ignores ideals, comes in the end to reject positive precepts also.

It remains to say that juristic phenomenalism, as such, has not reached America as yet. But the ground

is well prepared for it to come as a philosophical basis for skeptical realism.

Under Neo-Kantian relativist logicism and economic and psychological determinism there has been a marked revival of the juristic pessimism which characterized the thought of the last quarter of the nineteenth century. The analytical school held that improvement of the content of the body of legal precepts was no business of the jurist. The historical school held that all attempt to improve the law by deliberate legislative lawmaking was futile. Legislation could formulate authoritatively what had been discovered by experience and shaped in custom. Beyond that it was futile. The later generation of the followers of Bentham held that law could achieve very little positively. It could save us from some unhappiness, said Sir William Markby. Beyond that it could only constrain others not to interfere with our attaining happiness for ourselves. The positivists of fifty years ago added a doctrine of juristic futility to the historical school's doctrine of legislative futility. It was no more possible for juristic thinking and reasoning to affect the inexorable operation of the social laws which shaped legal and political institutions and doctrines and legal precepts than for astronomical speculation to affect the motions of the planets or the phases of the moon. In the last two decades this attitude of philosophical and juristic defeatism has been reappearing. It is especially marked in the Neo-Kantian relativist thinking which

now divides with neo-scholasticism the hegemony in juristic thought in Continental Europe. Radbruch tells us that value judgments are valid only in a particular system. It is impossible to demonstrate that one man's system has more validity than another's. We are each at full liberty to choose our own starting point. Hence the recognizing and delimiting of interests may as well be an arbitrary process, dictated by what can, in common phrase, get by.

Again, according to Radbruch, law presents certain irreducible fundamental antinomies. It is impossible to reconcile the ideas that lie at its very foundation, namely, justice, morals, and security. Justice has to do with relations of man with man, morals with the individual man, security with all of us. The three cannot be brought into accord. For example, he says, the contents of law and of morals are wholly different and coincide only by chance. To the science of law the basis of the law's authority is the power of those who wield the force of politically organized society. It will be noted that this goes as far to one extreme as the natural law doctrine of the seventeenth and eighteenth centuries went to the other. The law of nature school identified law and morals; Radbruch dissociates them. The law of nature school studied the right and ignored positive precepts; Radbruch tells us that the science of law is to study the positive precepts "without regard to right." When philosophy of law speaks thus, we cannot wonder that in a land where we have

never set much store by philosophical jurisprudence the next step is taken and law in the sense of the body of authoritative precepts is held to be all illusion.

Very likely American juristic realism is thus far in a stage comparable to the first stage (the mechanical stage) of sociological jurisprudence. That was a stage of clearing away, with no definite plan of building upon the cleared ground. In arguing that the form of social phenomena was not an arbitrary and artificial fact, that society was not a mere human invention, that the development of society took place according to fixed principles analogous to those which govern the physical universe, and hence that laws and institutions develop in accordance with like principles, in urging these things they drove the other schools to seek a broader foundation and furnished something of the impetus which produced the social philosophical school. Beyond this their achievements were negative only. They helped to clear away, but they built little or nothing. Such clearing processes in juristic thinking have been necessary from time to time. A notable example is the work of the Protestant jurist theologians of the sixteenth century in emancipating jurisprudence from theology. Something of the same may be seen in the first stage of English analytical jurisprudence. Austin was chiefly concerned to clear away the confusions which had accumulated in the two centuries of leadership of the law of nature school.

An important type of recent thinking which may



be called logical positivist realism has gone further in America than in Europe. It connects with skeptical realism in its distrust of the postulates of nineteenth-century law, its tendency to think of the phenomena of law in all its senses as disconnected, and its insistence on the significance of the several items of the judicial process. But to its negative program of critique of principles and conceptions and dogmas and processes it adds a positive program of seeking objectivity by research, aiming at a science of law as objective as mathematical physics or astronomy; a science based on statistical study of the actual administration of justice. It seeks to find a basis for the judgments of the science of law in the facts of the legal order and of the judicial and administrative processes.

Both logical positivist realism and psychological realism have clear constructive possibilities. How things actually take place in the judicial and administrative processes, while it cannot tell us wholly how they ought to take place, can teach us much as to the limits of effective guidance by legal precepts and legal technique and of effective bringing about of results through the machinery of the legal order. Also study of the psychological bases of the persistence and vitality of a taught tradition, systematized in received treatises and studied both in the formative student period and in the case of judges during long periods of practice before courts and later of sitting in them, can tell us much of the relation of

law to economic and social conditions and why it operates as it does as an agency of social control. If psychological realist jurisprudence could divorce itself from dogmatic Freudian psychology it might do for the coming generation what historical jurisprudence did for the nineteenth century.

To the third line of juristic thinking, the line of unification, one might well give the name of the line of Aristotle. Aristotle saw the two elements in social control, the one emphasized by jurists in the line of Socrates and the other by those in the line of the Sophists. He saw that morals could not cover the whole ground of social control, nor could the imperative of politically organized society suffice for everything. What we have is moral precepts recognized and backed by the legal order and at the same time a large field, morally indifferent, in which morals can give us no assured solutions, in which nevertheless, the economic order and the general security demand that men's conduct be certain and that their relations be adjusted on a uniform basis and by predictable precepts. So, he says, one part of the just is just by nature (i.e., by accord with the ideal) but the other part is just by convention or enactment. The legal order recognizes moral precepts expressing the one and establishes precepts to take care of the other. Many attempts have been made at unification in the line of Socrates: Thomas Aquinas by means of theology, Grotius through reason, Savigny through the Hegelian idea of history. But there has always

been an element which would not fit into the systems in this line, and when philosophical jurisprudence has reigned, justice has been too much at large. In the line of the Sophists, the element in the domain of morals is simply ignored. But in the actual operations of the legal order, both in the body of authoritative guides to determination and in the judicial and administrative processes, it has never been possible to exclude this element. When analytical jurisprudence has reigned, the moral element has come into the judicial process by bypaths, and there has been an unconscious and blundering reference to ideals to which must be referred much of the confusion which is the stock in trade of the realist.

Many have written of Comte as if he were to be referred to the line of the Sophists. But he sought laws behind social phenomena, and his idea of social laws analogous to the laws of the physical sciences led him to something very like natural law. It became natural law in the hands of Spencer and of Duguit. Observation is a method in the line of the Sophists. The construction of general principles behind what the jurist calls law, in all of its senses, is a method in the line of Socrates.

Today sociologists have sought to unify the social sciences and the sociological jurists seek to bring together and to unify the elements of which law, in the sense of the body of authoritative guides to determination, is made up. One way of doing this is by means of a theory of civilization and of social

control as a means of maintaining and furthering civilization. But whatever the theory, co-ordination or unification of the ethical and the imperative in a conception of social control is the work of sociological jurisprudence.

In the nineteenth century the problems discussed by jurists were the nature of law, the relation between law and morals, and the interpretation of legal history. Today the problems are (1) the valuing of interests, the working out of a criterion for valuing the claims, demands or desires which press upon the legal order for recognition and securing; (2) the relation of law in the sense of the body of authoritative guides to determination to the judicial and the administrative processes and of each process to the other and to the end of social control; (3) the limits of effective legal action; and (4) organization and systematization of the ideal element in law, as analytical jurisprudence has organized and systematized the precept element. On the whole, if we except the extreme juristic left wing, which ignores the first, the characteristics of juristic thought today seem to be these: the problem of values, of a criterion for valuing interests, is put in the first place as the fundamental problem of jurisprudence. Next, the jurists of today look at the legal order and the body of legal precepts and the judicial and administrative processes functionally. They ask how these precepts and processes work toward the ends discovered by their measure of values. Third, either avowedly or

without admitting it, they think of law in relation to the whole process of social control. In consequence they think of law as something much more complex than was perceived a generation ago and of the province of jurisprudence as much more inclusive. They are giving up the narrow idea of a self-sufficient science of law and are seeking what I have called team play with the other social sciences. Above all, they have become aware of the role of individualization in the judicial as well as in the administrative process and of the need of taking account of instead of ignoring the element of personal judgment and intuition derived from personal experience.

In America since the World War, juristic thought has tended to run to extremes. On one side there is an extreme of skepticism which, in line with the mode of thought which has been making for political absolutism in all parts of the world, finds administrative absolutism congenial and has much in common in its practical applications with the doctrine of disappearance of law and a regime of administrative orders which obtained for a time in Soviet Russia. It is reminiscent of the movement for administrative absolutism in seventeenth-century England. On the other side there is a quest of absolute objectivity as the supposed alternative of treating each case as unique. In this quest we are urged to take such objective activities as engineering for our model. But recent studies in engineering have been showing how considerable a margin of subjectivity there is even in

that characteristically mechanical activity, and I have shown elsewhere how and why the formulas of the jurist, expressing experience no less than those of the engineer, are tried to their theoretical limits while the formulas of mechanics are not. Happily, we are not bound to choose between these extremes.

Very little thought has been given so far in this country to criticism and systematizing of the ideal element of the law. Very little thought is being given to the crucial problem of the measure of values. It is easy to dismiss this problem, saying that value judgments are necessarily subjective and hence unscientific. But this argument assumes science must refer to one of the physical sciences. Those sciences must take nature as it is. It is futile to criticize. So we are told to take the legal order as it is, and to waste no time in criticizing it. If we do this, however, we succeed in nothing more than relegating our main problem to some other branch of learning where we shall still meet it once more in our path as the main obstacle to be overcome. As one reads the recent reports and studies recent legislation, it becomes apparent that we are attaining a new measure of values, whether the jurists help in the process or not.

Nothing, then, is gained by taking refuge from this difficult problem in a doctrine of irreducible antinomies, or in skeptical realism, or in a relativist logicism, inviting every one to take his own starting point, or in an analytical jurisprudence confined to the authoritative legal materials as they are and pos-

tulating that the judicial process in action accords with them.

A generation ago judges and practitioners were doing more for the law than the exponents of the science of law. As one reads American juristic literature of today he is moved to ask whether it is of more use than it was under the rule of the nineteenth-century schools. In the classical eras of growth in the past, the philosophical jurists took the lead. Why are they not doing so in the era of growth on which we have entered? Chiefly, I think, because the prevailing philosophy is negative and is skeptical as to any foundation on which to build. Creative eras of the past have built on something expressing experience—on principles demonstrated by experience, the Middle Ages on the Roman and canon law, the seventeenth and eighteenth centuries on reason applied to what had come down to them as received law and received morals. In the formative era of American law in the nineteenth century we built on the English law as expounded by Coke and Blackstone. In each case a creative philosophy shaped the materials and guided the process. A philosophy of give up can do nothing for us.

Philosophy of law must develop a positive side. Indeed, it is very likely because it is positive rather than purely negative that neo-scholasticism has been spreading so rapidly. In the meantime jurisprudence cannot mark time to await philosophical development. Legislatures and courts and administrative bureaus

will go on making adjustments of relations and orderings of conduct in the light of experience developed by reason with the traditional technique until jurists are ready with reason to be tested by experience.

Looking back over legal history, it stands out that the legal order, in spite of revolutions and overthrow of successive social and economic orders, and rise of new ones, constantly building on its past, has become steadily and surely more effective toward maintaining and furthering civilization. The imperative element upon which the jurists in the line of the Sophists insist and the arbitrary element in the judicial and administrative processes upon which there is always insistence at the beginning of an era of growth, have always come to be shaped to the model of the ethical or rational element as men have found how to put the legal response to newly urged interests into the order of reason. The psalmist abided the Lord because of His law. Certainly the development of social control through the legal order, if we go back no further than Rome from which so much of the materials of our body of authoritative guides to decision has been derived, may give us faith in an eternal not ourselves that makes for righteousness. When we look at jurisprudence *sub specie aeternitatis*, we may be sure that if overskepticism comes, assured faith cannot be far off.